SEMI-ANNUAL PROJECT PROGRESS REPORT

RCRA CORRECTIVE ACTION PERMIT (PERMIT)

Permittee: General Electric Company (GE)

Permit Number: MDD046279311

Prepared for GE Corporate Environmental Programs

319 Great Oaks Office Park Albany, New York 12203-5965

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Date: 20 January 2014

Report Period: 1 July 2013 through 31 December 2013

Copies: Maryland Department of the Environment (MDE)

RREEF Engineering Tetra Tech GEO

The Howard Hughes Corporation

1. Part II.H.1.a: Progress Made This Period

Underground Storage Tank (UST) No. 9 - CMS Unit 4

The final ground water sampling event under the 18 September 2003 Post-Termination Ground Water Sampling and Analysis Plan for UST No. 9, which was approved by the United States Environmental Protection Agency (EPA) on 29 September 2003, was performed on 23 October 2012. The Plan included a 10 year monitoring period, which terminated with this sampling event. The October 2012 ground water monitoring results were presented in a summary report that was previously submitted to EPA. Attachment 1 includes a summary of the ground water monitoring results.

Following the 23 October 2012 sampling event, GE submitted a new Post-Termination Ground Water Sampling and Analysis Plan for UST No. 9 to EPA dated 22 April 2013. The new Plan is consistent with the expired Plan, including biennial sampling over a 10-year monitoring period. EPA approved the new Plan by its email to GE dated 2 May 2013. The next ground water monitoring event is scheduled for October/November 2014.

Volatile Organic Compounds (VOCs) in Soil and Ground Water Beneath and Around the Former Manufacturing Building - RCRA Facility Investigation (RFI) Unit 2

GE completed RFI activities to address VOCs in soil and ground water at RFI Unit 2. GE submitted the combined RFI Report for RFI Units 2 and 7 to EPA on 10 January 1995. EPA approved the RFI Report for RFI Units 2 and 7 in its letter dated 30 December 1999.

By its letter dated 30 January 2007, GE provided EPA with the Corrective Measures Study (CMS) Work Plan for Units 2 and 7. The CMS Work Plan was subsequently revised to address comments provided by EPA. By its letter dated 30 January 2008, EPA approved the revised CMS Work Plan for CMS Units 2 and 7.

GE submitted the CMS Report to EPA on 14 August 2008. By its 4 August 2010 letter, EPA approved the CMS Report for Units 2 and 7, and selected Corrective Measures Alternative No. 3A. Under Alternative 3A, the existing Parcel A-10 pump-and–treat system was to continue operating and be expanded with the addition of a new pumping well. GE originally constructed and operated the pump-and-treat system as an interim corrective action pursuant to the stabilization measure under the former Permit. The system first began operating on 10 November 1998.

GE submitted its design to EPA for the new pumping well, designated as B-6, by its letter dated 19 October 2010. EPA approved the design by email to GE dated 27 October 2010. Figure 1 in Attachment 2 is a site plan that shows the location of the pump-and-treat system.

The new pumping well, B-6, was installed in November 2010, and began operating on 11 February 2011. By letter dated 28 February 2011, GE provided EPA with the Engineering Certification Report for the expansion of the pumpand-treat system. GE received a new Water Appropriation and Use Permit No. HO1997G014(04) issued by MDE on 9 June 2011. GE also provided EPA, by letter dated 24 May 2011, the revised Operation and Maintenance (O&M) Plan for the pump-and-treat system. The revised O&M Plan reflects the addition of new pumping well B-6.

The pump-and-treat system was fully operational over the last six months except as noted in the inspection logs attached to the monthly operating reports prepared by Tetra Tech GEO for this reporting period (i.e., July, August, September, October, November, and December 2013). The inspection logs were previously submitted by GE to EPA.

Alternative 3A also included expanding the current ground water sampling program for Units 2 and 7. On 4 May 2011, GE submitted a new Groundwater Sampling and Analysis Plan (SAP) for Units 2 and 7 to EPA for approval. The SAP was originally submitted to EPA on 24 November 2010, and conditionally approved by EPA by letter dated 10 January 2010. However, as requested by EPA, the monitoring program was optimized, as described in ERM's letter to EPA dated 6 April 2011, which was approved by EPA in an email from Mr. Erich Weissbart of EPA to GE dated 19 April 2011. The SAP dated 4 May 2011 incorporated the optimized monitoring program approved by EPA, and was formally approved by EPA in a 20 July 2011 letter.

In accordance with the 4 May 2011 SAP, a ground water monitoring event occurred in May 2013. The ground water monitoring results were presented in a summary report that was previously submitted to EPA. The ground water elevation and sample results from the November 2013 sampling event show that the hydraulic containment system continues to operate as intended. Specifically, VOC-impacted ground water continues to be contained on Parcel A-10. The next sampling event is scheduled for May/June 2014. Attachment 2 includes a summary of the ground water monitoring results.

Under Alternative 3A, the existing soil vapor extraction (SVE) system for the Exterior Trichloroethene (TCE) Tank (ETT) area was to continue operating, and be extended under the western wing of the Press Pit. The Phase II SVE system was originally constructed and operated as an Interim Corrective Measures (ICM) under the former Permit. The Phase II system commenced operation on 13 September 1999.

By its letter dated 15 November 2010, GE submitted to EPA its proposed pilot test work plan and design for the expanded SVE system. EPA approved the pilot test by its email to GE dated 6 December 2010.

Tetra Tech GEO completed the SVE pilot test in the western wing of the Press Pit in March 2011. As an attachment to GE's letter dated 4 April 2011, the results of the SVE pilot test in the Press Pit were provided to EPA. The report was approved by EPA in an email from Mr. Weissbart of EPA to GE dated 6 April 2011.

The expansion of the SVE system into the western wing of the Press Pit was completed in May 2011. GE provided EPA, by letters dated 7 June 2011 and 16 June 2011, the Engineering Certification Report and the revised O&M Plan, respectively, for the expanded SVE system. The last of the ten Press Pit SVE wells was brought on line in November 2012.

Performance monitoring for the Phase II SVE system was performed following the procedures specified in the revised O&M Plan. Except as noted in the inspection logs (i.e., for July, August, September, October, November, and

December 2013), which were previously provided to EPA, the system was fully operational until its summer shutdown on 14 June 2013. The Phase II SVE system was placed back into operation on 5 September 2013.

Attachment 3 includes a site plan for the Phase II SVE system and a plot showing the cumulative VOC mass removed by the Phase II system through time. Attachment 3 includes the flow chart (from the updated O&M Plan submitted in June 2011) that shows how the system is progressing through the termination criteria.

Warehouse Building Oil/Water Separator and Acid Neutralization Units - RFI Unit 6

GE completed RFI activities to address ground water impacts from RFI Unit 6 and submitted the RFI Report to EPA on 3 March 1995. By its letter dated 2 July 2002, EPA conditionally approved the RFI Report for RFI Unit 6. In this letter, EPA requested that GE perform long-term ground water monitoring at RFI Unit 6 to verify that ground water quality is improving over time. In response, GE submitted a Sampling and Analysis Plan to EPA by letter dated 23 August 2002. By its letter dated 6 January 2003, EPA approved the 19 August 2002 Sampling and Analysis Plan.

The most recent monitoring event was performed this period on 29 November 2012. The ground water monitoring results were presented in a summary report that was previously submitted to EPA. The next sampling event will be conducted in November 2017. Attachment 4 includes a summary of the ground water monitoring results.

Boiler House Tank Farm (BHTF) Ground Water Investigation - RFI Unit 5

GE completed RFI activities to address ground water impacts from the BHTF and submitted the RFI Report for RFI Unit 5 to EPA on 6 March 1995. The final round of water levels associated with the RFI was collected on 10 April 1995 in accordance with the RFI/CMS Plan. These data were submitted to EPA, on behalf of GE, in a 5 May 1995 letter from ERM.

EPA approved the RFI Report for RFI Unit 5 in a 21 June 1995 letter to GE. In this letter, EPA also deferred corrective action to remediate free-phase petroleum hydrocarbons at RFI Unit 5 to MDE. As such, all correspondence and reports pertaining to the free-phase hydrocarbon recovery activities were submitted to MDE, and details of the corrective action activities are not discussed herein. However, as directed in EPA's letter, GE has provided EPA with copies of all related correspondence and reports submitted to MDE.

As reported in a prior Project Progress Report, GE submitted its Site Closure Report dated 21 May 2007 to MDE. Subsequently, in its letter dated 10 July 2007 to GE, MDE approved case closure pending proper abandonment of the monitoring wells at the BHTF, except those wells that were to be retained to support work being performed by GE under the Permit. Accordingly, the following wells and piezometers were abandoned on 18 September 2007 by a Maryland-licensed driller: 5-BTF-MW-3; ERM-10R; ERM-11R; ERM-12R; ERM-13R; OBG-52; OBG-54; OBG-55; P-1; P-4; P-6; P-7; and P-8. EPA concurred with this list of wells as documented in its email to GE dated 16 August 2007. The product recovery system at the BHTF was decommissioned and removed from the site in September 2007.

Other Activities Conducted Pursuant to the Permit

The new RCRA Corrective Action Permit was issued by EPA for the facility with an effective date of 3 November 2012. In accordance with Part II.B.3 of the Permit, GE submitted an Institutional Control Plan (IC Plan) dated 24 January 2013 to EPA. By its email to GE, EPA approved the IC Plan on 5 February 2013. For this reporting period, GE prepared draft environmental covenants (ECs) for each of the properties subject to the IC Plan. The draft ECs for parcels A-8, A-10 and A-15 were submitted to EPA for review and approval. The draft ECs for parcels A-40 and A-74 are being reviewed by the property owners.

2. Part II.H.1.b: Findings

UST No. 9 - CMS Unit 4

The most recent post-termination monitoring event was performed on 23 October 2012, the results for which were previously submitted to EPA. Following the 23 October 2012 sampling event, GE submitted a new Post-Termination Ground Water Sampling and Analysis Plan for UST No. 9 to EPA dated 22 April 2013. The new Plan is consistent with the expired Plan, including biennial sampling over a 10-year monitoring period. EPA approved the new Plan by its email to GE dated 2 May 2013. The next ground water monitoring event is scheduled for October/November 2014.

ERM obtained water level measurements and collected ground water samples from monitoring wells ERM-4, ERM-6, ERM-7, ERM-18, TP-6, TP-7, TP-8, TP-11, OBG-17, and OBG-18 on 23 October 2012 (Figure 1 of Attachment 1). In addition to the ground water samples, ERM collected the following quality assurance/quality control (QA/QC) samples: a trip blank of deionized water that was prepared by the laboratory; an equipment rinseate blank collected at monitoring well TP-7 and designated as TP-7EB; and a blind duplicate of TP-7 designated as TP-170. Two drums of purges water were generated. A sample of the purge water in Drum S-1 was collected for analysis; the purge water in this

drum was from ERM-6, ERM-7 and TP-8, which are located in the core of the plume.

The ground water, QA/QC, and drummed purge water samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. The limit of quantitation (LOQ) for benzene, ethylbenzene, toluene, and MTBE was 1 microgram per liter (μ g/L). The LOQ for total xylenes was 3 μ g/L. Eurofins Lancaster Laboratories (Eurofins [formerly Lancaster Laboratories, Inc.]) performed the analyses under contract to GE.

Table 1 of Attachment 1 summarizes the ground water levels measured at each monitoring well and the respective ground water elevations. Table 2 of Attachment 1 summarizes the analytical results. The ground water elevations and analytical results were used to create a ground water conditions figure (Figure 2 of Attachment 1) that depicts the generalized ground water flow direction and the approximate extent of 5 μ g/L of BTEX in ground water.

BTEX and MTBE were not detected in the ground water samples from monitoring wells ERM-18, TP-6, TP-11, OBG-17, and OBG-18, nor were they detected in the trip blank or equipment blank. The maximum benzene concentration was 5.4 µg/L, which was detected in the sample collected from monitoring well ERM-6. This maximum concentration is nominally above its 5 µg/L maximum contaminant level (MCL). Benzene was not detected above its MCL in any other well. Toluene, ethylbenzene, xylenes, and MTBE were not detected above their respective MCLs or, for MTBE, EPA's health advisory in any of the ground water or QA/QC samples. As expected, the results for the purge water sample showed that the drummed purge water is not characteristically hazardous.

Benzene and total BTEX concentrations from November 1996 to November 2012 for each well were plotted as Figures 3 and 4 of Attachment 1, respectively. The following temporal trends for benzene and total BTEX are identified based on Figures 3 and 4:

- Benzene concentrations at ERM-4 appear to display a decreasing trend from 1996 to 2004. Since 2004, benzene concentrations have been essentially non-detect (ND). Total BTEX has decreased from greater than 1,000 μg/L in 1997 to approximately 100 μg/L in November 2012;
- Benzene concentrations at ERM-6 display a decreasing trend from 1996 to 2004. Since 2004, benzene concentrations have fluctuated between ND and approximately 5 μg/L. Total BTEX concentrations continue to trend downward since 1997;

- Benzene and total BTEX concentrations at ERM-7 have been decreasing since 2002. Benzene levels have been less than 5 μg/L since the November 2008 sampling event;
- Benzene and total BTEX concentrations at TP-6 have been decreasing since 1996. Benzene concentrations have remained below 5 μg/L since 2000 while total BTEX concentrations have fluctuated between non-detect and approximately 50 μg/L since 2000;
- Benzene and total BTEX concentrations at TP-8 have been decreasing since 1998; and
- Benzene and total BTEX concentrations at TP-11 have ND since 1997;
- ERM-18 (not shown in the figures) has been ND since 1998;
- OBG-17 and OBG-18 (not shown in Figures 3 and 4 of Attachment 1) have been ND since first sampled in 1996.

VOCs in Soil and Ground Water Beneath and Around the Former Manufacturing Building - RFI Unit 2

The pump-and-treat system was fully operational over the last six months except as noted in the inspection logs attached to the monthly performance monitoring reports prepared by Tetra Tech GEO for this reporting period (i.e., July, August, September, October, November, and December 2013). The reports were previously provided to EPA.

In accordance with the 4 May 2011 SAP, a ground water monitoring event occurred in November 2013. The ground water monitoring results were presented in a summary report that was previously submitted to EPA. The next sampling event is scheduled for May/June 2014. Attachment 2 consists of summary tables and figures showing the site plan and performance monitoring results for the Parcel A-10 pump-and-treat system.

ERM collected ground water levels on 8 November 2013 from all of the wells shown on Figure 5 of Attachment 2 and listed in Table 1 of Attachment 2 prior to the sampling event. ERM collected the ground water samples using passive diffusion bags (PDBs). The PDBs were deployed on 8 November 2013 and retrieved on 25 November 2013. The samples were analyzed for VOCs, as required by the SAP, by Eurofins.

The ground water elevation data are summarized in Table 1 of Attachment 2 for 8 November 2013. Figures 6 and 7 of Attachment 2 are ground water elevation contour maps for the saprolite and bedrock units, respectively.

Table 2 of Attachment 2 summarizes the ground water analytical results for TCE for the November 2013 sampling event, as well as results from prior sampling events from June 2007. Figures 9 and 10 of Attachment 2 illustrate the change in TCE concentrations since June 2000 at wells located within the plume core and at wells located at the plume toe and cross-gradient of the plume, respectively.

In addition to TCE and consistent with the results from prior ground water sampling events at Units 2 and 7, cis-1,2-dichloroethene (cDCE) and trans-1,2-dichloroethene (tDCE) were also detected above limits of quantitation (LOQs) in a small subset of the monitoring wells. cDCE was detected in monitoring wells 2MW-5, 2MW-8S, 2MW-11, 2TP-9, and B-5 at concentrations ranging from 6 μ g/L to 360 μ g/L. tDCE was only detected in monitoring well 2TP-9 at 7 μ g/L.

Quality assurance/quality control (QA/QC) samples included a field blank, trip blank, matrix spike/matrix spike duplicate (MS/MSD) and a blind duplicate of 2MW-8S (labeled 2MW-8). VOCs were not detected in the field or trip blanks. TCE was the only VOC detected above its LOQ in 2MW-8S and its duplicate, a concentration of 23,000 μ g/L in each.

The ground water elevation and sample results from the November 2013 sampling event show that the hydraulic containment system continues to operate as intended. Specifically, VOC-impacted ground water continues to be contained on Parcel A-10.

Performance monitoring was performed for the Phase II SVE system following the procedures specified in the revised O&M Plan. Except as noted in the inspection logs (i.e., for July, August, September, October, November, and December 2013), which were previously provided to EPA, the Phase II SVE system was fully operational until its summer shutdown on 14 June 2013. The Phase II SVE system was placed back into operation on 5 September 2013.

Attachment 3 includes a site plan for the Phase II SVE system and a plot showing the cumulative VOC mass removed by the Phase II system through time. Attachment 3 includes the flow chart (from the updated O&M Plan submitted in June 2011) that shows how the system is progressing through the termination criteria.

Warehouse Building Oil/Water Separator and Acid Neutralization Units - RFI Unit 6

In accordance with the EPA-approved 19 August 2002 SAP, the most recent ground water monitoring event occurred in November 2012, the results for which were previously submitted to EPA. The next scheduled monitoring event under the April 2013 Plan is October/November 2017. Attachment 4 consists of

summary tables and a figure showing the ground water monitoring results for RFI Unit 6.

ERM collected ground water samples from monitoring wells 6MW-1, 6MW-2, 6MW-3, and OBG-65 on 29 November 2012 (Figure 1 of Attachment 4). QA/QC samples consisted of a blind duplicate of 6MW-2, designated as 6MW-5, and a trip blank. The samples were submitted to Eurofins for analyses of VOCs. The purge water was treated in the Parcel A-10 ground water treatment system.

Table 1 of Attachment 4 summarizes the ground water levels measured at each monitoring well and the respective ground water elevations. Table 2 of Attachment 4 summarizes the analytical results. Figure 1 of Attachment 4 shows that the ground water flow direction is to the east from the source area(s) under the building. The ground water flow is consistent with the historical data previously presented to EPA for RFI Unit 6.

The ground water quality data collected in November 2012 are consistent with the historical data collected for RFI Unit 6. VOCs were not detected in any of the ground water samples except for 6MW-2, which is located at the former oil/water separator under the building. The ground water elevation data and sample results show that the extent of VOC-affected ground water remains within the footprint of the Warehouse Building.

3. Part II.H.1.c: Identification of Additional Solid Waste Management Units (SWMUs)

No additional SWMUs were identified during this reporting period.

4. Part II.H.1.d: Changes in Investigations, Workplans and Interim Corrective Measures

None.

5. Part II.H.1.e: Problems Encountered During This Period

The pump-and-treat system was fully operational over the last six months except as noted in the inspection logs attached to the monthly performance monitoring reports prepared by Tetra Tech GEO for this reporting period. These reports were previously provided to EPA.

Unless otherwise noted in the inspection logs attached to the monthly field log reports prepared by Tetra Tech GEO for this reporting period (which were previously provided to EPA), the Phase II SVE system was fully operational until its summer shutdown on 14 June 2013. The Phase II SVE system was placed back into operation on 5 September 2013.

6. Part II.H.1.f: Projected Work for the Next Reporting Period

UST No. 9 - CMS Unit 4

This next scheduled monitoring event is October/November 2014.

VOCs in Soil and Ground Water Beneath and Around the Former Manufacturing Building - RFI Unit 2

During the next reporting period, GE expects that the Parcel A-10 pump-and-treat system will operate full-scale. GE also expects to implement the next ground water monitoring event in May/June 2014 in accordance with the 4 May 2011 SAP. Ground water monitoring will include the monitoring wells on a semi-annual, annual, and biennial sampling frequency.

The Phase II SVE system is expected to operate at full-scale until its summer shutdown in June 2014.

Warehouse Building Oil/Water Separator and Acid Neutralization Units - RFI Unit 6

The next monitoring event under the EPA-approved 19 August 2002 SAP is scheduled for October/November 2017.

Other Activities Conducted Pursuant to the Permit

Once EPA approves the ECs for Parcels A-8, A-10 and A-15, GE will collect signatures and record those ECs with the Howard County Land Records. GE will continue to work with the owner of Parcels A-40 and A-74 to prepare the ECs for those parcels and submit to EPA for review.

7. Part II.H.1.g: Copies of Analytical Data

UST No. 9 - CMS Unit 4

The results for the 23 October 2012 monitoring event were presented in a report that was previously submitted to EPA.

VOCs in Soil and Ground Water Beneath and Around the Former Manufacturing Building - RFI Unit $\#\,2$

The results for the November 2013 monitoring event were presented in a report that was previously submitted to EPA.

The monthly performance monitoring reports for the pump-and-treat system during this reporting period were previously submitted to EPA.

The field logs for the Phase II SVE system during this reporting period were previously submitted to EPA.

Warehouse Building Oil/Water Separator and Acid Neutralization Units - RFI Unit 6

The results for the 29 November 2012 monitoring event were presented in a report that was previously submitted to EPA.

8. Part II.H.1.h: Changes in Personnel

There have been no personnel changes this reporting period.

9. Part II.H.1.i: Summary of Contacts Made Concerning Releases

There were no contacts made during this reporting period.

10. Part II.H.1.j: Copies of Correspondence Concerning Releases

There has been no correspondence with representatives of the local community, public interest groups, or local, state, or federal governments concerning releases or corrective action for releases during the reporting period with the exception of correspondence relating to releases already being addressed and required under the Permit.

ATTACHMENT 1

To Semi-Annual Project Progress Report RCRA Corrective Action Permit No. MDD046279311

General Electric Co.
Former Appliance Park East Facility
Columbia, MD

Period 1 July 2013 to 31 December 2013

Findings Summary for Underground Storage Tank (UST) No. 9 - CMS Unit 4

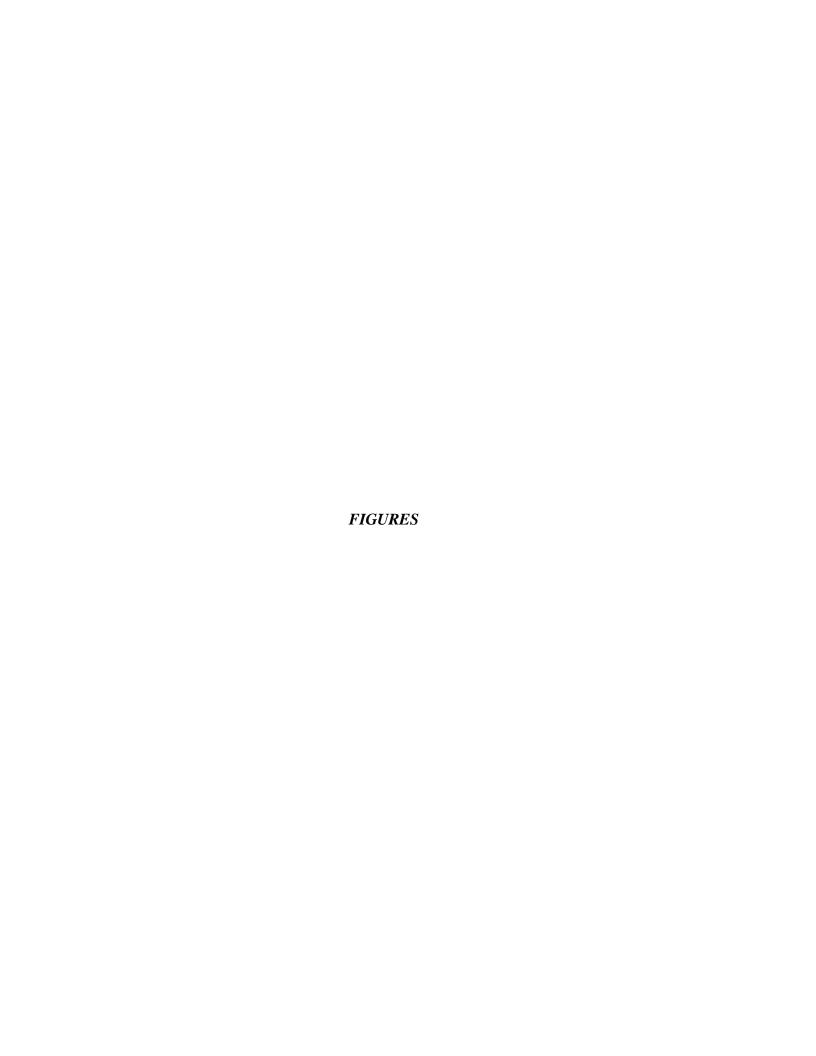
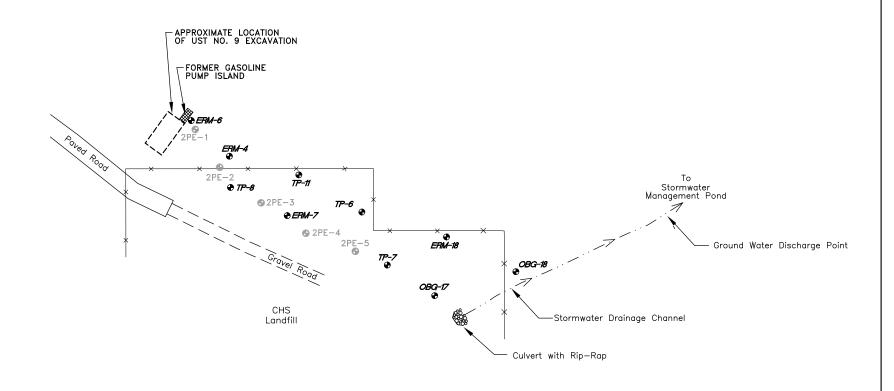


Figure 1 Post-Termination Monitoring Well Locations for UST No. 9 Former Appliance Park East Facility Columbia, Maryland



Legend

⊕ 2PE-1 2-Phase Well Location

⊕ ERM-18 Post-Termination Monitoring Well Location

X Fence



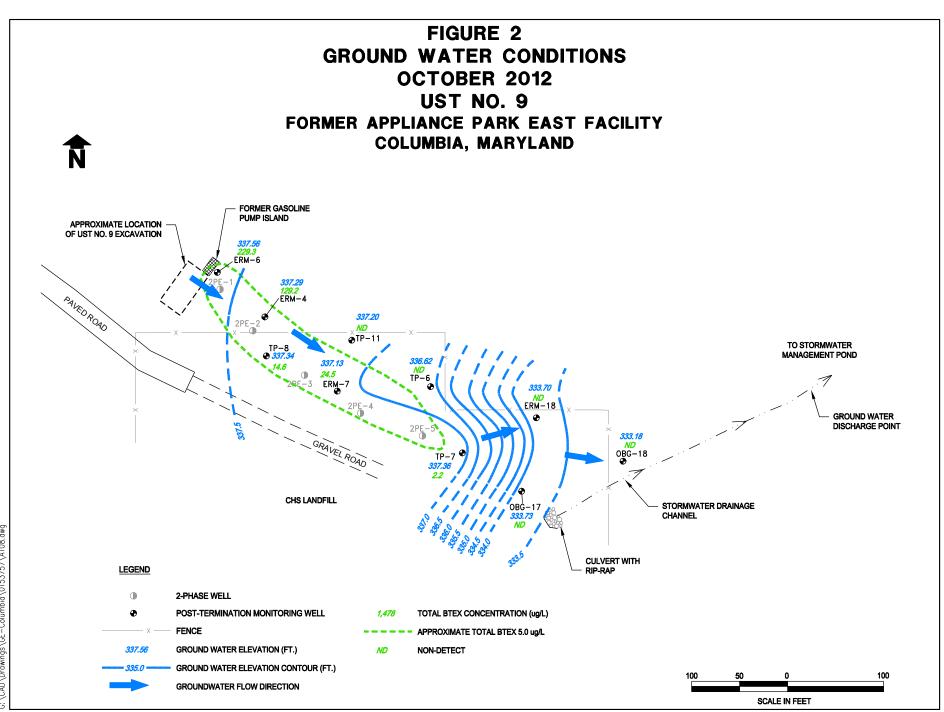


Figure 3
Benzene Concentrations
UST No. 9
Former Appliance Park East Facility
Columbia, Maryland

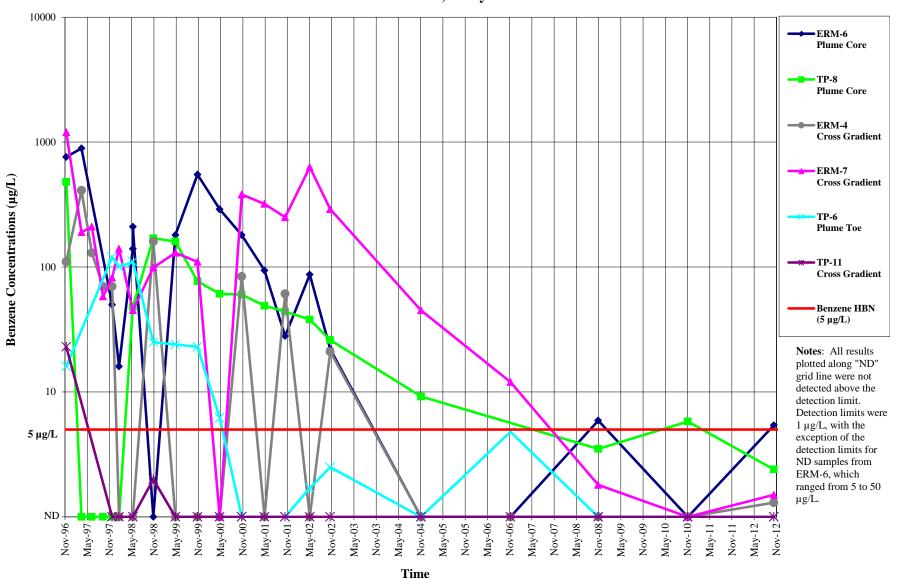
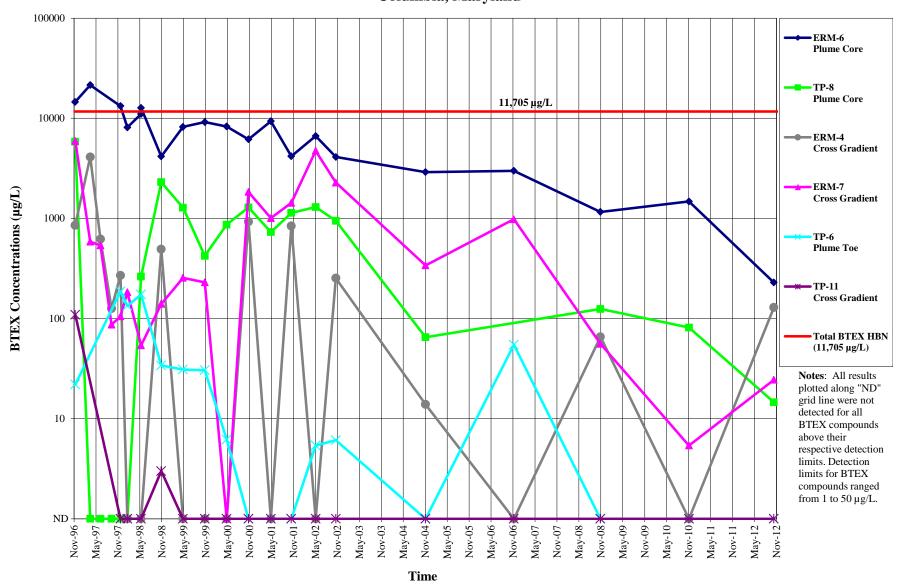


Figure 4
BTEX Concentrations
UST No. 9
Former Appliance Park East Facility
Columbia, Maryland



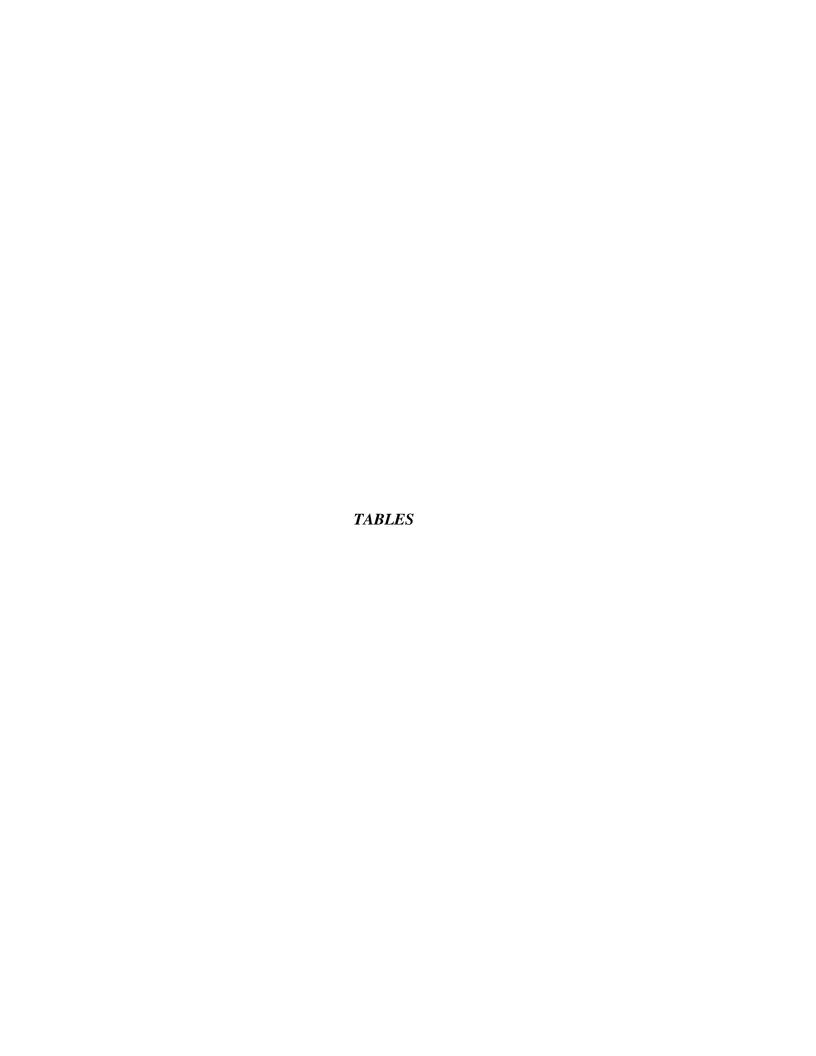


Table 1 Summary of Ground Water Elevations in Monitoring Wells at UST No. 9 Former Appliance Park East Facility, Columbia, Maryland

		1/20/	1998	5/14/	1998	10/29	/1998	4/29	1999	10/28	/1999	4/27/	2000
		Depth to	Ground										
	Reference	Ground	Water										
Well ID	Elevation	Water	Elevation										
	(ft msl)	(ft bre)	(ft msl)										
ERM-4	359.96	22.00	337.96	18.29	341.67	21.57	338.39	21.53	338.43	21.37	338.59	20.15	339.81
ERM-6	360.62	22.39	338.23	18.67	341.95	21.92	338.70	21.9	338.72	21.68	338.94	20.64	339.98
ERM-7	366.30	28.54	337.76	24.95	341.35	28.21	338.09	28.1	338.20	27.93	338.37	26.70	339.60
ERM-18	351.10	16.75	334.35	13.78	337.32	16.72	334.38	16.24	334.86	16.02	335.08	14.72	336.38
TP-6	359.18	21.93	337.25	18.42	340.76	21.53	337.65	21.44	337.74	21.27	337.91	20.05	339.13
TP-7	360.60	23.60	337.00	20.02	340.58	27.71	332.89	23.04	337.56	22.8	337.80	21.59	339.01
TP-8	362.14	24.27	337.87	20.64	341.50	23.8	338.34	23.81	338.33	23.65	338.49	22.44	339.70
TP-11	364.51	26.72	337.79	23.09	341.42	26.33	338.18	26.25	338.26	26.03	338.48	24.88	339.63
OBG-17	351.96	17.76	334.20	14.20	337.76	17.50	334.46	17.20	334.76	17.13	334.83	15.57	336.39
OBG-18	349.14	12.27	336.87	11.29	337.85	15.45	333.69	12.25	336.89	12.25	336.89	11.14	338.00

		10/26	/00 (a)	5/1/0	1 (a)	10/18	/01 (a)	5/9/0	02 (a)	10/24	/02 (a)	11/10	/04 (a)	10/30	/06 (a)
Well ID	Reference Elevation (ft msl)	Depth to Ground Water	Ground Water Elevation												
	(It IIISI)	(ft bre)	(ft msl)												
ERM-4	359.96	21.51	338.45	21.24	338.72	22.34	337.62	22.76	337.20	23.25	336.71	21.02	338.94	NM	
ERM-6	360.62	21.85	338.77	21.66	338.96	22.73	337.89	23.15	337.47	23.45	337.17	21.37	339.25	22.03	338.59
ERM-7	366.30	28.18	338.12	27.76	338.54	28.90	337.40	29.33	336.97	29.81	336.49	27.53	338.77	28.23	338.07
ERM-18	351.10	16.54	334.56	15.91	335.19	17.33	333.77	17.30	333.80	17.98	333.12	15.98	335.12	16.41	334.69
TP-6	359.18	21.44	337.74	21.10	338.08	22.29	336.89	22.63	336.55	23.16	336.02	21.02	338.16	21.58	337.60
TP-7	360.60	23.16	337.67	22.82	338.01	24.10	336.50	24.44	336.16	24.99	335.61	22.81	337.79	23.29	337.54
TP-8	362.14	23.75	338.39	23.48	338.66	24.61	337.53	25.00	337.14	25.53	336.61	23.25	338.89	23.94	338.20
TP-11	364.51	26.27	338.24	29.99	334.52	27.16	337.35	27.57	336.94	27.82	336.69	25.90	338.61	26.42	338.09
OBG-17	351.96	17.40	334.56	16.77	335.19	18.25	333.71	18.14	333.82	18.77	333.19	16.63	335.33	17.15	334.81
OBG-18	349.14	14.30	334.84	12.32	336.82	15.39	333.75	12.99	336.15	14.59	334.55	14.33	334.81	13.12	336.02
									ļ						

		11/7/08	3 (a)(b)	11/15/1	0 (a)(b)	10/23/1	2 (a)(b)
Well ID	Reference Elevation (ft msl)	Depth to Ground Water (ft bre)	Ground Water Elevation (ft msl)	Depth to Ground Water (ft bre)	Ground Water Elevation (ft msl)	Depth to Ground Water (ft bre)	Ground Water Elevation (ft msl)
		(,	(/	(,	(/	(/	(,
ERM-4	359.96	22.65	337.31	21.68	338.28	22.67	337.29
ERM-6	360.62	23.05	337.57	22.12	338.50	23.06	337.56
ERM-7	366.30	29.15	337.15	28.21	338.09	29.17	337.13
ERM-18	351.10	17.37	333.73	16.30	334.80	17.40	333.70
TP-6	359.18	22.53	336.65	21.67	337.51	22.56	336.62
TP-7	360.60	24.32	336.28	23.45	337.15	23.47	337.13
TP-8	361.82	24.50	337.32	23.55	338.27	24.48	337.34
TP-11	364.51	27.28	337.23	26.43	338.08	27.31	337.20
OBG-17	351.96	18.18	333.78	17.15	334.81	18.23	333.73
OBG-18	349.14	15.42	333.72	13.58	335.56	15.96	333.18

Notes:

ft msl - feet above mean sea level.

ft bre - feet below reference elevation.

NM - Not Measured.

(a) The stickup for TP-7 was damaged during site maintenance. It has been repaired and re-surveyed. The correct survey elevation is 360.83 feet as of October 2000.

(b) The stickup for TP-8 was damaged during site maintenance in October 2006. It was been repaired and re-surveyed in February 2007. Elevation is 361.82 feet.

Table 2 Summary of Analytical Results for Ground Water Samples at UST No. 9 Former Appliance Park East Facility, Columbia, Maryland

Parameter	MCL^1	Well ID											ERM-4										
		Date	11/11/96	3/17/97	6/10/97	9/10/97	11/24/97	1/20/98	5/14/98	10/29/98	4/29/99	10/28/99	4/27/00	10/26/00	5/1/01	10/18/01	5/9/02	10/24/02	11/10/04	11/16/06	11/7/08	11/15/10	10/23/12
Benzene (µg/L)	5		110	410	130	70	70	< 1	< 1	160	<1	<1	<1	84	<1	61	<1	21	<1	<1	<1	<1	1.3
Toluene (µg/L)	1,000		510	1,800	170	4	67	< 1	< 1	100	<1	<1	<1	370	<1	300	<1	94	6.2	<1	6.7	<1	2.9
Ethylbenzene (µg/L)	700		42	400	71	23	23	< 1	< 1	74	<1	<1	<1	96	<1	130	<1	46	1.9	<1	13	<1	42
Xylene (µg/L)	10,000		190	1,500	250	29	110	< 3	< 3	160	<3	<3	<3	380	<3	350	<3	92	5.8	<3	46	<3	83
MTBE (μg/L)	NA		7	30	18	3	7	< 1	< 1	<5	<1	<1	<1	<10	<1	<1	<1	<1	<1	<1	<1	<1	4.0
Field Measurements					•												ŀ	-				ļ	
pH (standard units)	NA							5.29	5.39	5.2	5.45	5.62	5.39	5.34	5.30	5.40	6.29	5.54	6.36	5.71	6.44	5.41	5.86
Conductivity (µS/cm)	NA							116	90	218	105	114	122	187	115	251	137	280	188	162	203	183	210
Temperature (Celsius)	NA							11.9	14.2	15.8	16.2	17.4	12.0	15.4	14.3	13.7	16.3	12.9	15.0	16.8	17.9	15.2	16.3

Parameter	MCL^1	Well ID											I	RM-6										
		Date	11/11/96	3/17/97	6/10/97	9/10/97	11/24/97	1/20/98	5/14/98	5/14/98 PB	10/29/98	4/29/99	10/28/99	4/27/00	10/26/00	5/1/01	10/18/01	5/9/02	10/24/02	11/10/04	11/16/06	11/7/08	11/15/10	10/23/12
Benzene (µg/L)	5		760	890	NS	NS	50	16	140	210	<50	180	550	290	180	94	28	87	22	<10	<10	5.9	<5	5.4
Toluene (µg/L)	1,000		6,600	17,000	NS	NS	4,300	1,600	2,100	2,800	260	820	720	690	590	550	390	460	220	360	210	65	38	5.9
Ethylbenzene (µg/L)	700		1,400	2,300	NS	NS	1,300	1,000	1,500	1,500	1,200	1,600	1,700	1,600	1,200	1,700	960	1,500	870	640	680	260	340	48
Xylene (μg/L)	10,000		5,800	1,300	NS	NS	7,600	5,500	7,300	8,200	2,700	5,600	6,200	5,700	4,200	7,000	2,800	4,600	3,000	1,900	2,100	830	1,100	170
MTBE (μg/L)	NA		1,100	80	NS	NS	9	7	< 50	< 50	<10	<50	<50	< 50	<50	<50	<5	90	্ত	15	<20	12	<20	6.4
Field Measurements										į														ļ !
pH (standard units)	NA							5.89	6.50		6.45	6.51	6.56	6.38	6.54	6.37	7.70	6.97	5.91	7.22	6.46	6.33	5.97	6.11
Conductivity (µS/cm)	NA							315	300		333	466	528	563	445	505	520	433	617	471	511	462	360	435
Temperature (Celsius)	NA							12.9	14.8		16.4	14.7	16.5	13.1	16.2	15.2	15.2	16.1	14	15.5	17.1	18.2	15.8	17.4

·																							
Parameter	MCL ¹	Well ID											ERM-7										
		Date	11/12/96	3/17/97	6/10/97	9/10/97	11/24/97	1/20/98	5/14/98	10/29/98	4/29/99	10/28/99	4/27/00	10/26/00	5/1/01	10/18/01	5/9/02	10/24/02	11/10/04	11/16/06	11/7/08	11/15/10	10/23/12
Benzene (µg/L)	5		1,200	190	210	58	82	140	45	99	130	110	<1	380	320	250	630	290	45	12	1.8	<1	1.5
Toluene (µg/L)	1,000		2,300	110	110	5	3	7	1	4	17	13	<1	440	68	320	1,300	330	37	300	1.1	<1	<1
Ethylbenzene (µg/L)	700		540	76	68	13	15	36	8	26	89	85	<1	490	360	350	1,000	870	160	270	53	5	23
Xylene (μg/L)	10,000		1,900	210	150	11	5	< 20	< 3	11	19	22	<3	530	260	510	1,800	790	98	400	<3.0	<3.0	<3.0
MTBE (μg/L)	NA		70	11	17	10	15	23	8	<20	22	<20	<1	<50	<50	<1	32	<5	<2.0	<20.0	1.6	1.1	1.7
Field Measurements																							į /
pH (standard units)	NA							5.85	5.26	5.38	5.95	5.79	5.09	5.94	5.71	6.00	6.26	5.91	5.74	5.91	5.79	5.00	6.06
Conductivity (µS/cm)	NA							363	190	374	353	327	39	217	279	229	306	419	168	156	129	168	169
Temperature (Celsius)	NA							11.7	14.3	13.6	14.2	13.6	12.3	14.0	14.9	15.2	13.9	12.27	13.4	14.9	16.6	14.8	15.03

Parameter	MCL1	Well ID										ERM-18									
		Date	11/12/96	11/24/97	1/20/98	5/14/98	5/14/98 PB	10/29/98	4/29/99	10/28/99	4/27/00	10/26/00	5/1/01	10/18/01	5/9/02	10/24/02	11/10/04	11/16/06	11/7/08	11/15/10	10/23/12
Benzene (µg/L)	5		2	< 1	6	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene (µg/L)	1,000		<1	< 1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene (µg/L)	700		<1	< 1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (μg/L)	10,000		<3	< 3	< 3	< 3	< 3	< 3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MTBE (μg/L)	NA		3	2	7	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																				ļ	
pH (standard units)	NA				5.65	5.88		5.58	5.75	5.79	5.77	5.58	5.92	5.20	5.64	5.5	5.36	5.73	5.45	5.57	5.48
Conductivity (µS/cm)	NA				145	105		112	175	196	191	159	24.4	145	168	231	111	164.1	190	236	200
Temperature (celsius)	NA				11.4	13.9		15.8	12.8	16	11.1	15.4	12.4	16.4	13.7	13.2	12.4	15.9	17.7	15.8	17.1

Notes: All analyses by performed by Lancaster Laboratories, Inc. using EPA Method SW 846-8021B μ g/L - micrograms per liter. μ s/Cm - micro-Siemens per centimeter.

BMQL - Below Method Quatitation Limit

MTBE - Methyl tertiary-butyl ether NA - Not applicable; standard does not exist for specified parameter.

NS - No sample collected; TP-8 casing was damaged and not sampled on 11/16/06.
< - Analyte was not detected at or above the detection limit; value represents the detection limit.
--- Sample not analyzed for specified parameter.

¹ EPA Maximum Contaminant Level (MCL). EPA National Primary Drinking Water Regulations, EPA 816-F-09-004, May 2009.

² Blind duplicate samples of TP-7 labeled TP-170 were collected from 1/20/98 to 10/23/12; duplicate sample results are second values listed.

Table 2 Summary of Analytical Results for Ground Water Samples at UST No. 9 Former Appliance Park East Facility, Columbia, Maryland

Parameter	MCL^1	Well ID										TP-6								
		Date	11/12/96	11/24/97	01/20/98	05/14/98	10/29/98	04/29/99	10/28/99	04/27/00	10/26/00	05/01/01	10/18/01	05/09/02	10/24/02	11/10/04	11/16/06	11/07/08	11/15/10	10/23/12
Benzene (µg/L)	5		16	120	100	110	25	24	23	6.2	<1	<1	<1	1.7	2.5	<1	4.8	<1	<1	<1
Toluene (µg/L)	1,000		2	19	6	9	1	BMQL	1.1	<1	<1	<1	<1	<1	1.1	<1	3.0	<1	<1	<1
Ethylbenzene (µg/L)	700		4	30	25	31	8	7	6.4	<1	<1	<1	<1	3.7	2.5	<1	33	<1	<1	<1
Xylene (μg/L)	10,000		<3	18	3	24	<3	BMQL	<3	<3	<3	<3	<3	<3	<3	<3	14	<3	<3	<3
MTBE (μg/L)	NA		11	36	37	29	7	6	9.4	3.4	1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																				
pH (standard units)	NA				5.19	5.28	5.32	5.7	5.27	5.03	5.17	4.81	5.60	5.78	4.98	5.17	5.20	5.41	4.99	5.05
Conductivity (µS/cm)	NA				207	130	122	169	179	163	131	249	202	324	385	179	218	184	173	338
Temperature (Celsius)	NA				10.8	13.4	13	13.5	12.4	11.3	13.2	14.2	12.2	13.3	10.33	11.4	14.9	16.4	15.3	15.7

Parameter	MCL^1	Well ID												TP-7 ²										
		Date	11/12/96	03/17/97	06/10/97	09/10/97	11/24/97	01/20/98	05/14/98	5/14/98 PB	10/29/98	04/29/99	10/28/99	04/27/00	10/26/00	05/01/01	10/18/01	05/09/02	10/24/02	11/10/04	11/16/06	11/07/08	11/15/10	10/23/12
Benzene (µg/L)	5		550	520	380	190	150	170/170	35/38	< 1	26/30	13/13	4.6/4.7	8.9/8.0	6.1/5.7	13/12	15/15	24/23	24/27	1.8/1.8	10/9.8	2.3/2.4	<1/<1	<1/<1
Toluene (µg/L)	1,000		150	32	<1	10	8	8/8	1/1	< 1	BMQL/<1	BMQL/<1	<1/<1	<1/<1	<1/<1	<1/<1	<1/<1	1.1/<1	1.1/1.1	<1/<1	3.1/3.0	<1/<1	<1/<1	<1/<1
Ethylbenzene (µg/L)	700		110	120	88	49	41	42/43	6/6	< 1	3/3	BMQL/<1	<1/<1	22/19	1.4/1.4	9.2/8.5	6.9/6.2	10/9.9	8/8.1	<1/<1	99/95	14/14	<1/<1	2.2/2.2
Xylene (μg/L)	10,000		130	70	15	5	< 5	<10/<10	<3/<3	< 3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	<3/<3	29/28	<3/<3	<3/<3	<3/<3
MTBE (µg/L)	NA		77	48	35	21	20	21/22	4/<5	< 1	5/6	2/3	1.9/1.5	<1/1.8	2.1/2.1	<5/<5	1.6/1.5	3.4/3.7	<5/<5	<1/<1	<5/1.6	<1/<1	<1/<1	<1/<1
Field Measurements																								
pH (standard units)	NA							5.49	5.68		5.39	5.42	4.98	4.93	5.40	4.75	6.10	5.29	5.55	5.78	5.45	5.34	4.13	5.2
Conductivity (µS/cm)	NA							120	120		108	149	94	98	125	118	117	166	226	112	89	106	73	78
Temperature (Celsius)) NA							12.3	13.4		17.4	14.5	14.3	11.9	14.3	14	12.9	13.8	11.11	13.4	15.6	17.5	15.2	15.46

Parameter	MCL1	Well ID											TP-8										
		Date	11/11/96	03/17/97	06/10/97	09/10/97	11/24/97	01/20/98	05/14/98	10/29/98	04/29/99	10/28/99	04/27/00	10/26/00	05/01/01	10/18/01	05/09/02	10/24/02	11/10/04	11/16/06	11/07/08	11/15/10	10/23/12
Benzene (µg/L)	5		480	<1	<1	<1	< 1	< 1	48	170	160	77	61	60	49	44	38	26	9.2	NS	3.5	5.8	2.4
Toluene (µg/L)	1,000		2,500	<1	<1	<1	< 1	< 1	44	500	230	26	85	200	21	71	320	150	1.9	NS	2.2	2.5	1.3
Ethylbenzene (µg/L)	700		570	<1	<1	<1	< 1	< 1	31	230	240	130	190	310	320	320	240	240	43	NS	47	31	4.5
Xylene (µg/L)	10,000		2,300	<3	<3	<3	< 3	< 3	140	1,400	650	190	530	720	340	700	700	530	11	NS	72	42	6.4
MTBE (μg/L)	NA		<200	<1	<1	<1	< 1	< 1	< 5	<50	<20	<10	<10	<10	<20	<1	<5	<1	<1	NS	2.8	8.3	2.8
Field Measurements																							
pH (standard units)	NA							5.28	5.09	4.97	5.36	5.07	5.13	5.21	5.16	5.90	5.76	5.59	5.92		5.58	5.66	6.11
Conductivity (µS/cm)	NA							104	140	416	249	210	280	264	244	251	226	259	170		188	208	291
Temperature (Celsius)	NA							12.6	14.5	14.6	14.4	14.1	12.9	14.3	18	14.5	14.5	11.83	13.6	- 1	17.0	15.0	17.2

Parameter	MCL^1	Well ID									1	ГР-11								
		Date	11/12/96	11/24/97	01/20/98	05/14/98	10/29/98	04/29/99	10/28/99	04/27/00	10/26/00	05/01/01	10/18/01	05/09/02	10/24/02	11/10/04	11/16/06	11/07/08	11/15/10	10/23/12
Benzene (µg/L)	5		23	< 1	< 1	< 1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene (µg/L)	1,000		51	< 1	< 1	< 1	BMQL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene (µg/L)	700		6	< 1	< 1	< 1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (µg/L)	10,000		29	< 3	< 3	< 3	BMQL	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MTBE (µg/L)	NA		<1	< 1	< 1	< 1	BMQL	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																				
pH (standard units)	NA				5.02	5.58	4.97	5.36	3.94	5.05	4.93	4.87	5.70	5.42	4.91	5.62	5.17	5.06	4.85	5.05
Conductivity (µS/cm)	NA				103	60	205	87	155	116	118	78	108	109	112	98	115	96	202	211
Temperature (Celsius)	NA				12.6	13.4	13.6	13.6	13.9	10.9	14.4	13.7	12.3	13.7	11.5	12.8	15.6	17.4	14.7	16.0

Notes: All analyses by performed by Lancaster Laboratories, Inc. using EPA Method SW 846-8021B μ g/L - micrograms per liter. μ s/Cm - micro-Siemens per centimeter.

BMQL - Below Method Quatitation Limit

MTBE - Methyl tertiary-butyl ether NA - Not applicable; standard does not exist for specified parameter.

NS - No sample collected; TP-8 casing was damaged and not sampled on 11/16/06.
< - Analyte was not detected at or above the detection limit; value represents the detection limit.
--- Sample not analyzed for specified parameter.

¹ EPA Maximum Contaminant Level (MCL). EPA National Primary Drinking Water Regulations, EPA 816-F-09-004, May 2009.

² Blind duplicate samples of TP-7 labeled TP-170 were collected from 1/20/98 to 10/23/12; duplicate sample results are second values listed.

Table 2 Summary of Analytical Results for Ground Water Samples at UST No. 9 Former Appliance Park East Facility, Columbia, Maryland

Parameter	MCL^1	Well ID									O	BG-17								
		Date	11/11/96	11/24/97	01/20/98	05/14/98	10/29/98	04/29/99	10/28/99	04/27/00	10/26/00	05/01/01	10/18/01	05/09/02	10/24/02	11/10/04	11/16/06	11/07/08	11/15/10	10/23/12
Benzene (µg/L)	5		<1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene (µg/L)	1,000		<1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene (µg/L)	700		<1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (μg/L)	10,000		<3	< 3	< 3	< 3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MTBE (μg/L)	NA		<1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																				
pH (standard units)	NA				5.21	5.34	5.02	5.56	5.70	5.21	5.18	5.37	6.00	5.60	5.28	5.92	5.12	5.51	5.66	6.19
Conductivity (µS/cm)	NA				291	440	542	336	321	654	440	355	217	208	214	588	638	655	741	649
Temperature (Celsius)	NA				12.2	13.1	17.9	13.0	15.7	10.6	15.6	15.1	14.1	14.7	13.83	15.2	15.8	18.6	15.5	16.3

Parameter	MCL^1	Well ID										OBG-18									
		Date	11/12/96	11/24/97	01/20/98	05/14/98	5/14/98 PB	10/29/98	04/29/99	10/28/99	04/27/00	10/26/00	05/01/01	10/18/01	05/09/02	10/24/02	11/10/04	11/16/06	11/07/08	11/15/10	10/23/12
Benzene (µg/L)	5		<1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene (µg/L)	1,000		<1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene (µg/L)	700		<1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (μg/L)	10,000		<3	< 3	< 3	< 3	< 3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
MTBE (µg/L)	NA		<1	< 1	< 1	< 1	< 1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Field Measurements																					
pH (standard units)	NA				5.42	5.22		4.95	5.38	5.35	5.41	5.61	5.60	6.00	5.93	5.4	6.71	6.05	5.93	5.67	6.13
Conductivity (µS/cm)	NA				223	240		287	317	293	199	190	222	153	149	168	260	161	221	287	300
Temperature (Celsius)	NA				9.2	15.1		17	14.3	17.1	10.8	16.7	12.3	17.4	13.5	14.2	12.8	16.8	18.8	16.9	18.32

Sample Parameter MCL ¹ ID Drum S-1													
		Date	04/27/00	10/26/00	05/01/01	10/18/01	05/09/02	10/24/02	11/10/04	11/16/06	11/07/08	11/15/10	10/23/12
Benzene (µg/L)	5		87	48	79	13	8.3	13.4	7.2	6.5	1.3	1.9	1.8
Toluene (µg/L)	1,000		200	160	150	150	76	69	220	280	35	16	3.1
Ethylbenzene (µg/L)	700		410	330	270	320	270	272	320	370	180	130	38
Xylene (μg/L)	10,000		1,600	1,200	900	970	940	917	920	890	460	350	130
MTBE (µg/L)	NA									<10			

Notes: All analyses by performed by Lancaster Laboratories, Inc. using EPA Method SW 846-8021B µg/L - micrograms per liter. µS/cm - micro-Siemens per centimeter.

BMQL - Below Method Quatitation Limit

MTBE - Methyl tertiary-butyl ether
NA - Not applicable; standard does not exist for specified parameter.

NS - No sample collected; TP-8 casing was damaged and not sampled on 11/16/06.
< - Analyte was not detected at or above the detection limit; value represents the detection limit.
--- Sample not analyzed for specified parameter.

¹ EPA Maximum Contaminant Level (MCL). EPA National Primary Drinking Water Regulations, EPA 816-F-09-004, May 2009.

² Blind duplicate samples of TP-7 labeled TP-170 were collected from 1/20/98 to 10/23/12; duplicate sample results are second values listed.

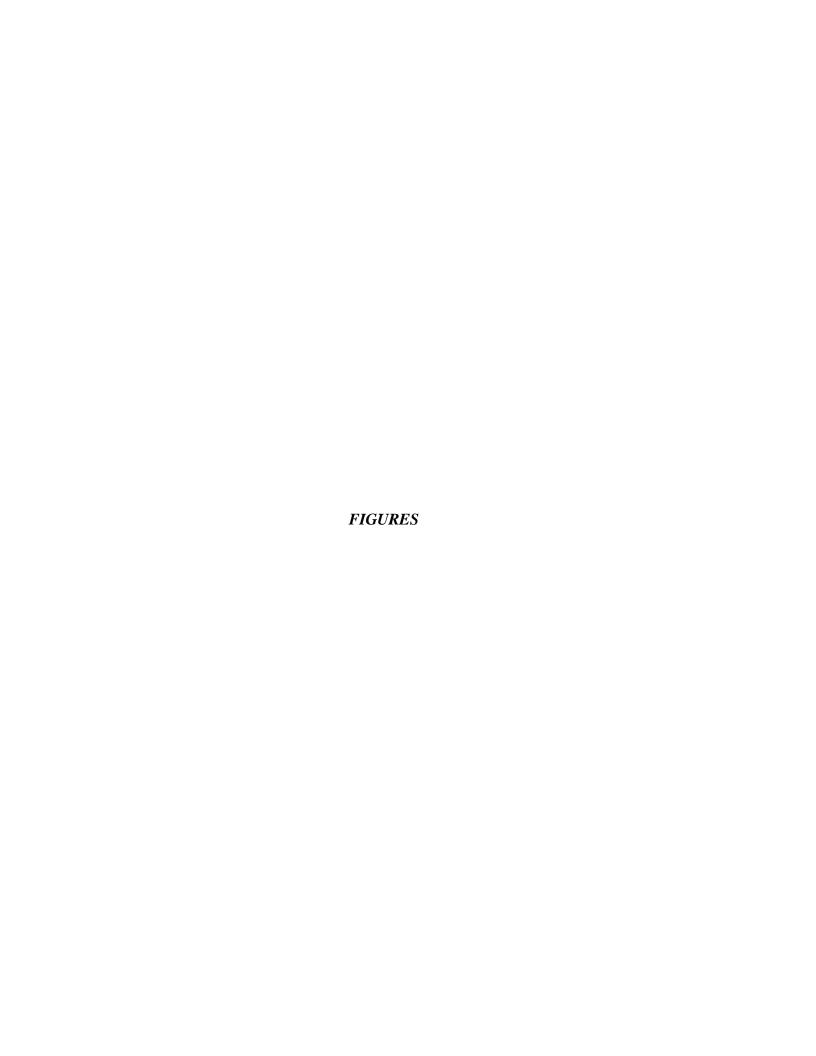
ATTACHMENT 2

To Semi-Annual Project Progress Report RCRA Corrective Action Permit No. MDD046279311

General Electric Co.
Former Appliance Park East Facility
Columbia, MD

Period 1 July 2013 to 31 December 2013

Findings Summary for Ground Water for RFI Units 2 and 7 $\,$



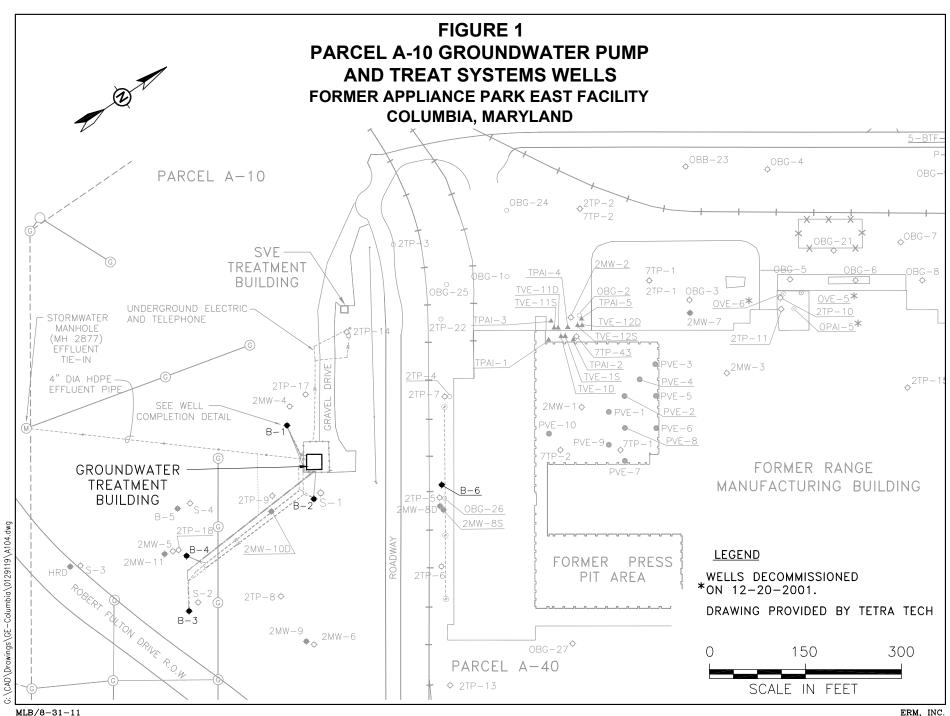
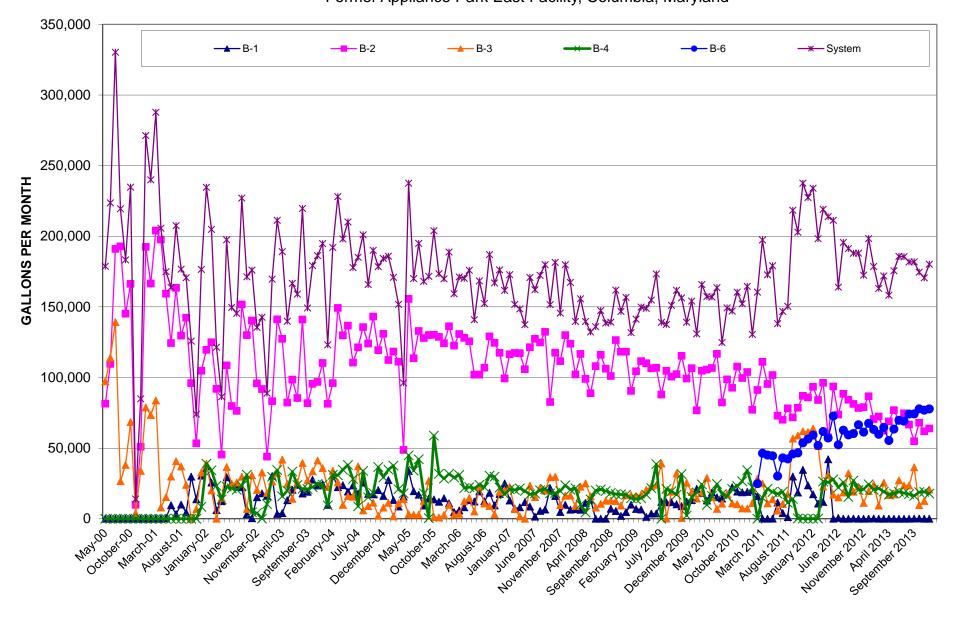


Figure 2
Groundwater Pump-and-Treat System Recovery
Former Appliance Park East Facility, Columbia, Maryland



TIME

Figure 3
Groundwater Pump-and-Treat System Recovery - Trailing 12-Month Total Gallons
Former Appliance Park East Facility, Columbia, Maryland

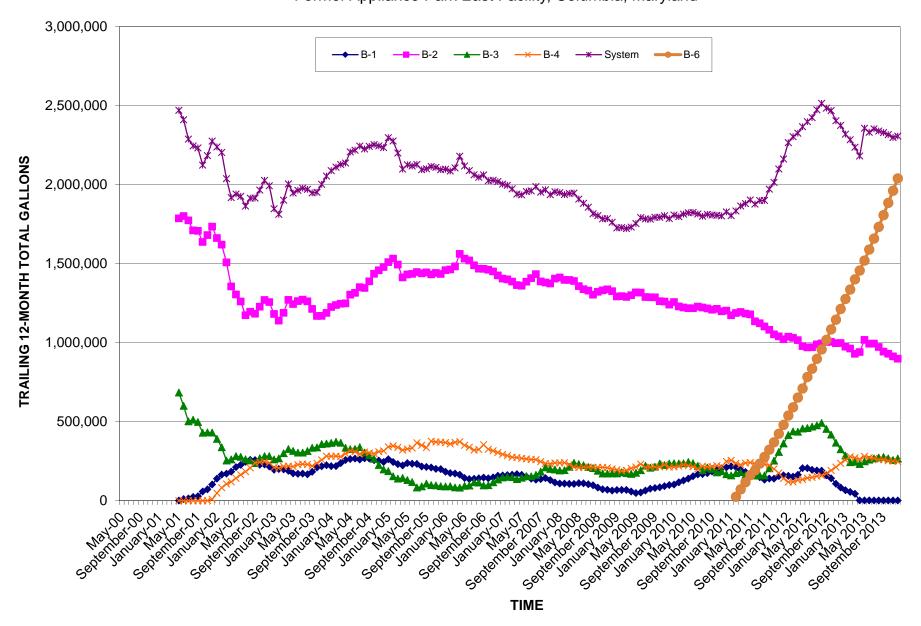
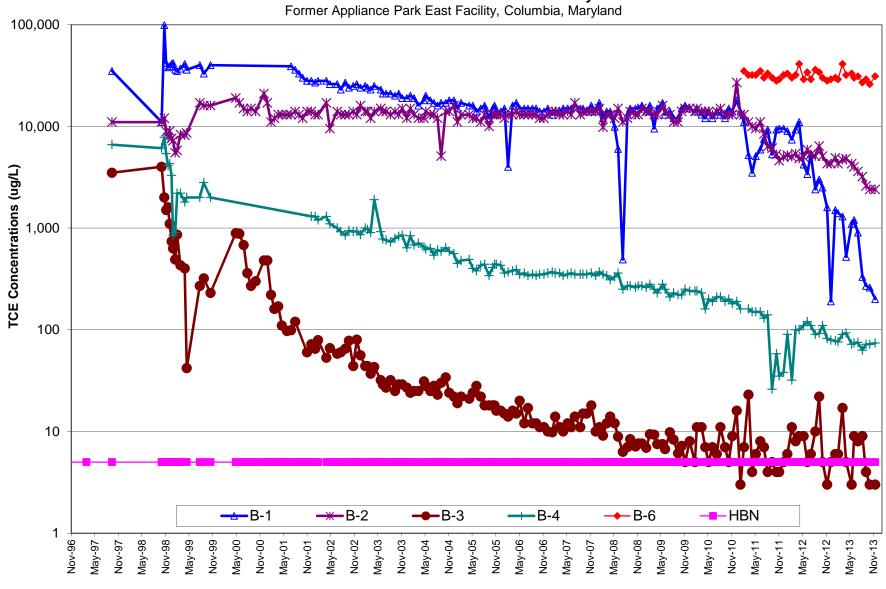
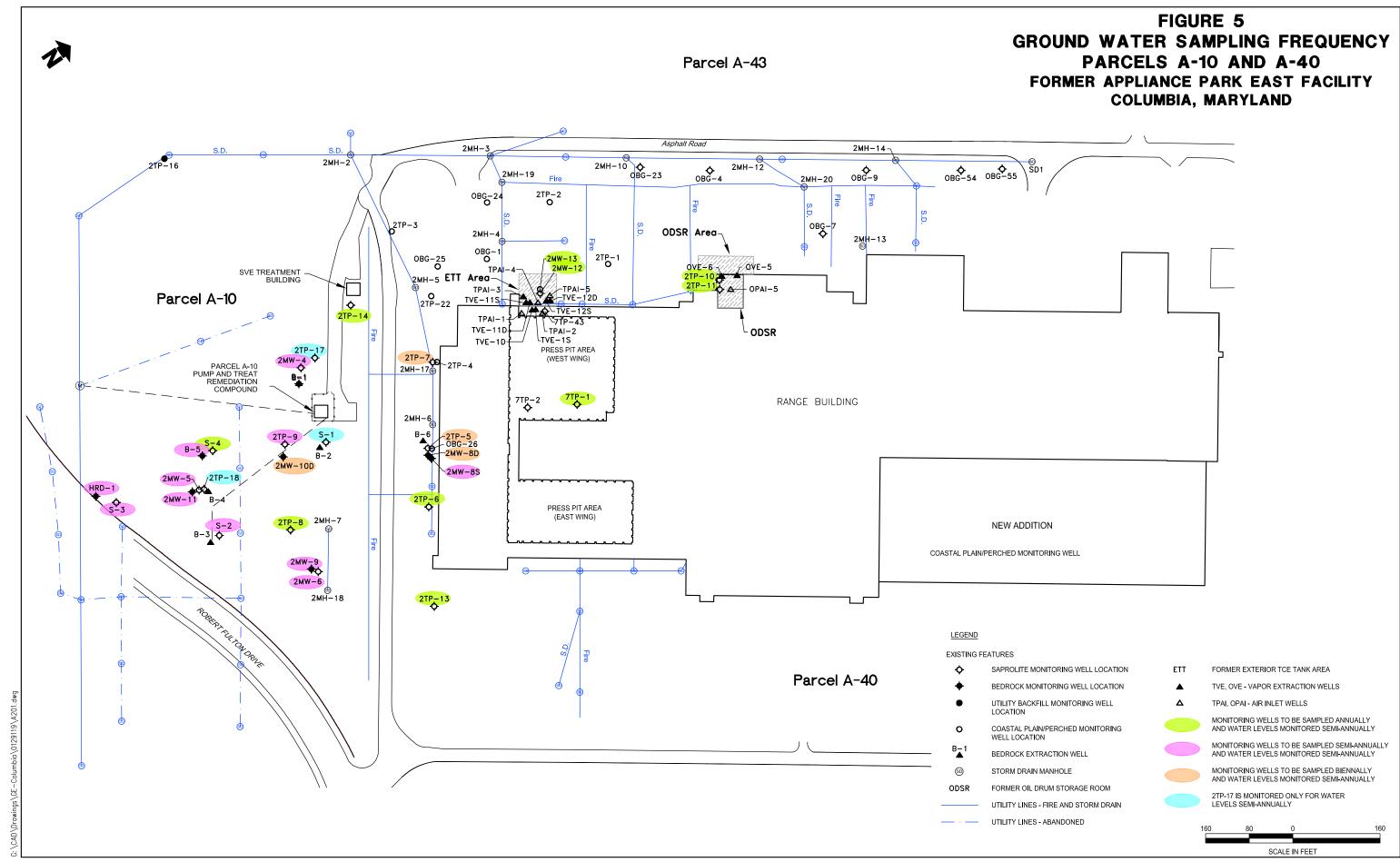


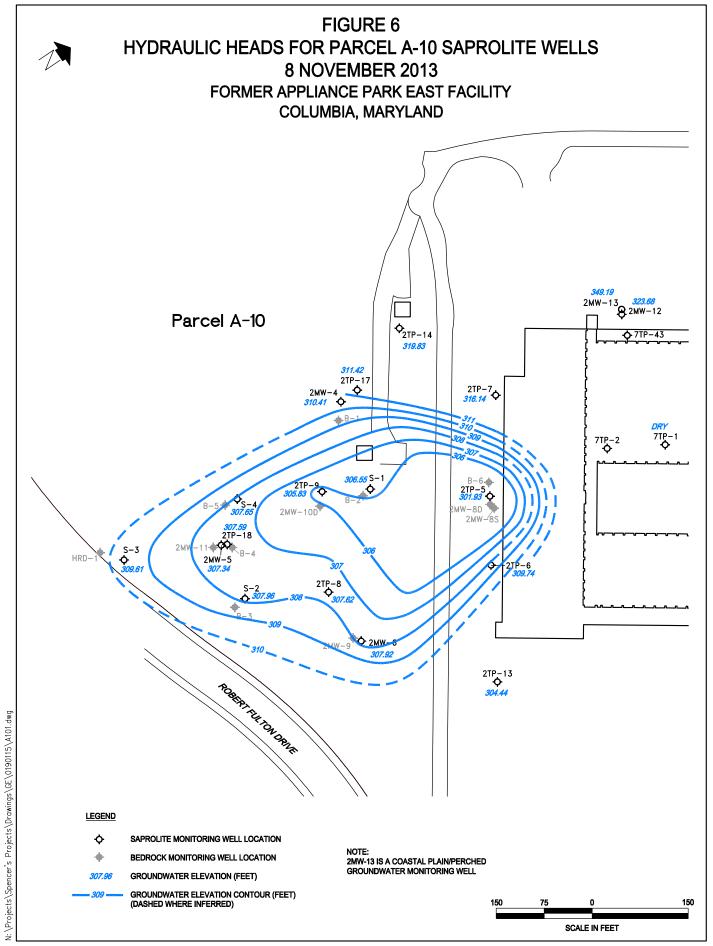
Figure 4
TCE Concentrations in Groundwater Recovery Wells

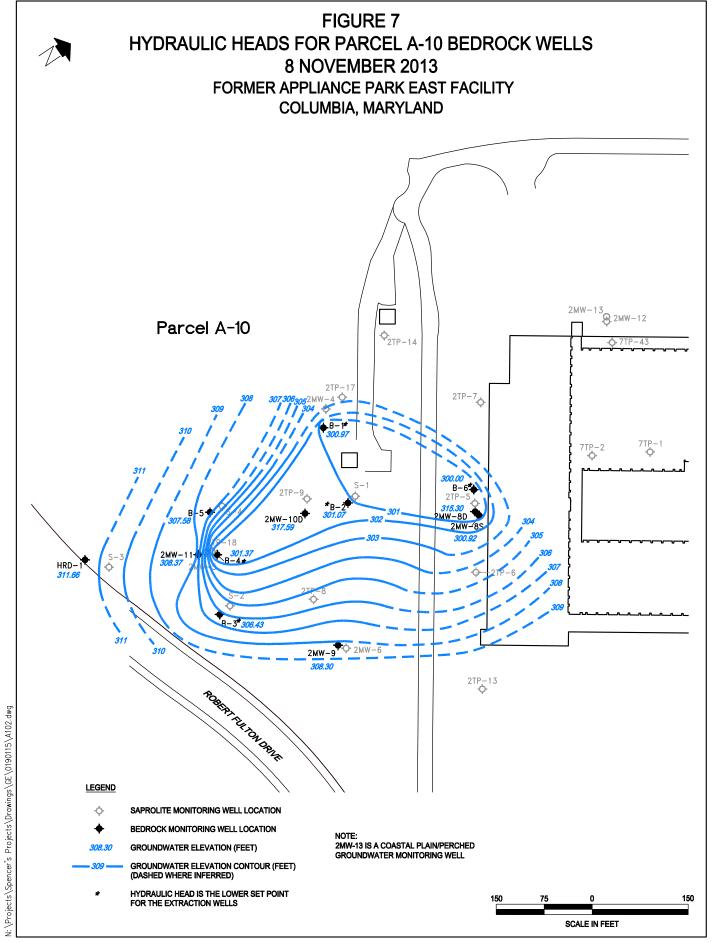


Time

HBN: Permit-Specified Health Based Number







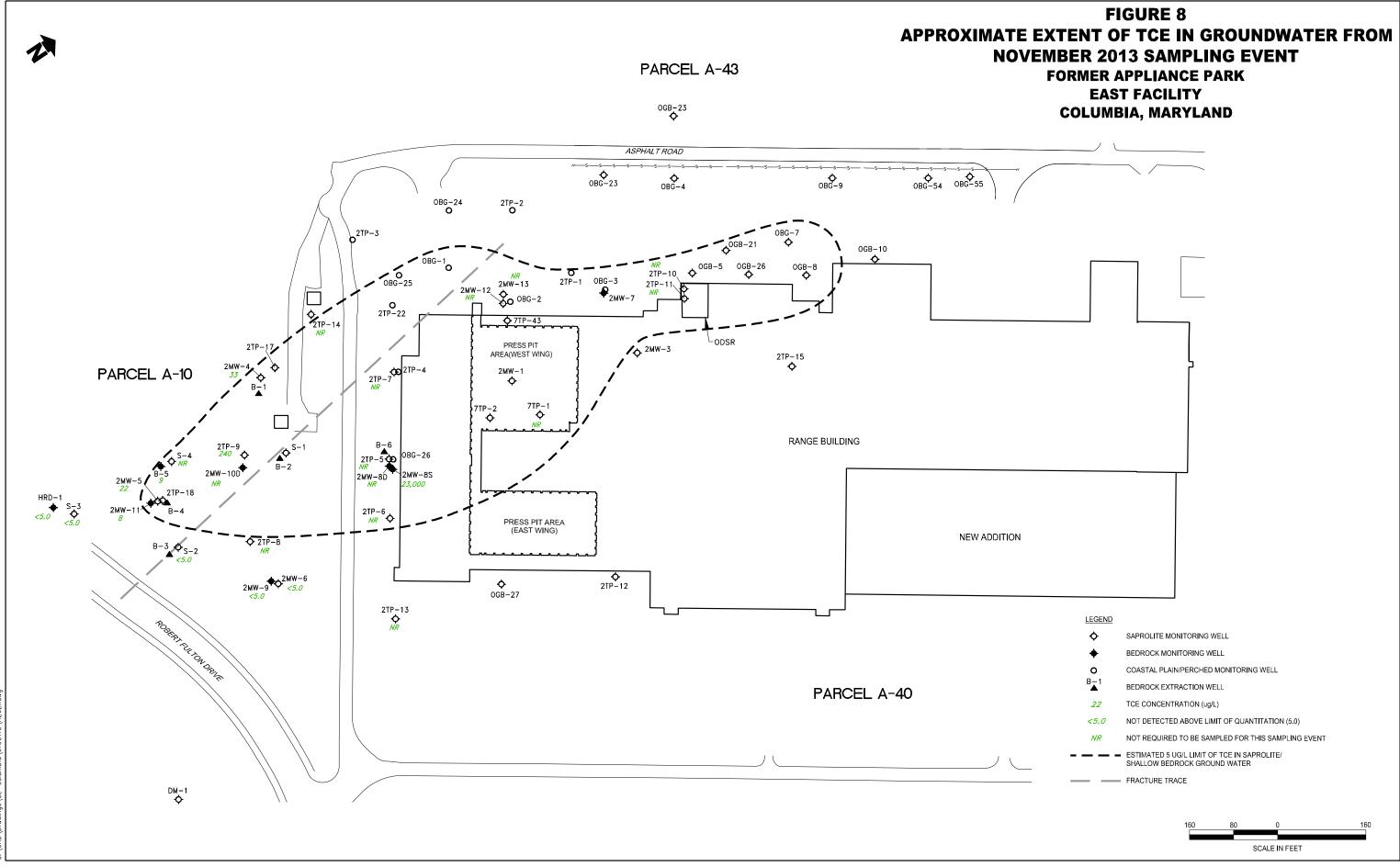


Figure 9
TCE Concentrations within Plume Core
Former Appliance Park East Facility
Columbia, Maryland

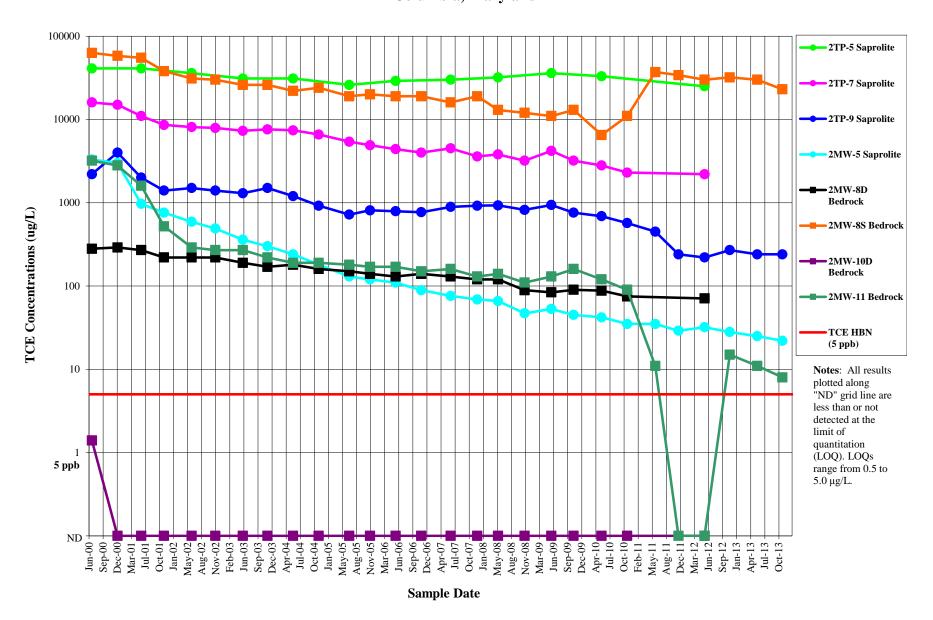
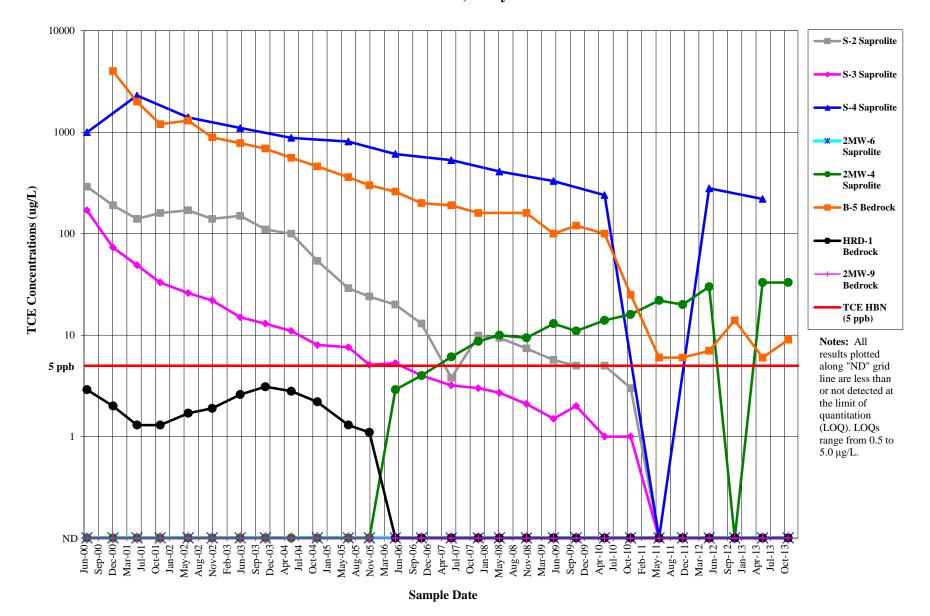


Figure 10
TCE Concentrations at Plume Toe and Cross-Gradient
Former Appliance Park East Facility
Columbia, Maryland



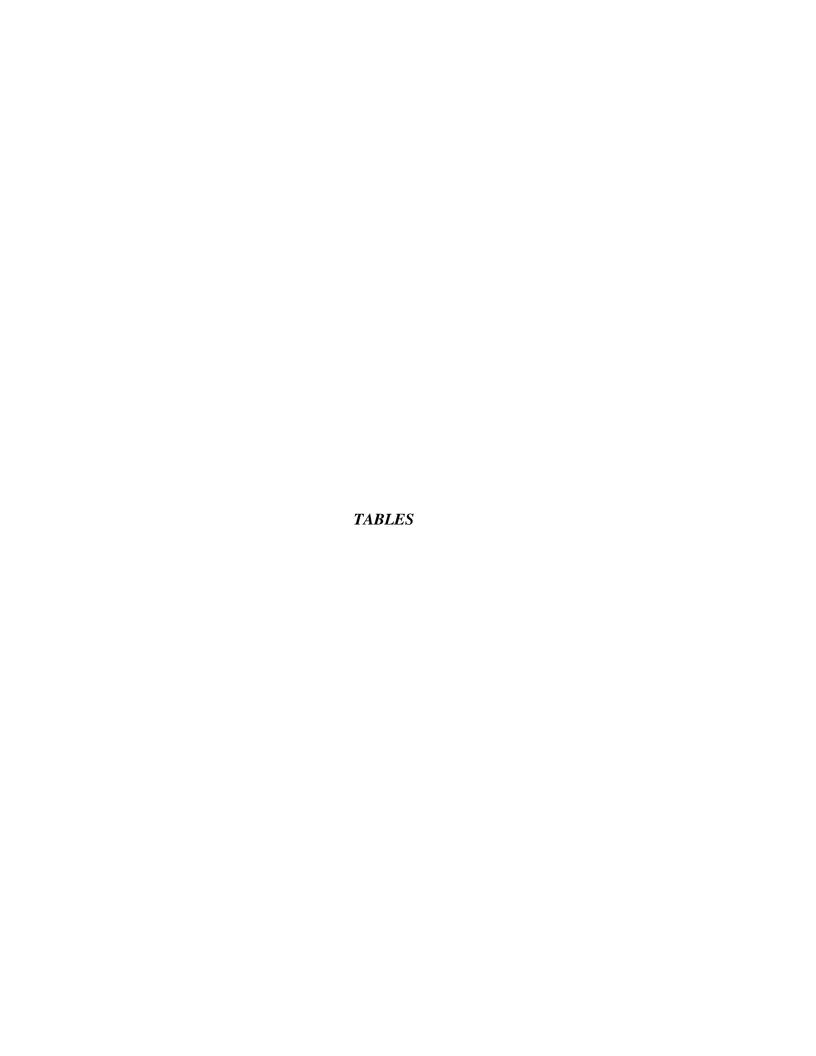


Table 1
Ground Water Elevations for Monitoring Wells at Units 2 and 7 on 8 November 2013
Former Appliance Park East Facility, Columbia, Maryland

Well ID	Interpreted Lithology	Reference Point Elevation (ft > MSL)	Well Depth (ft BGS)	Well Screen Length (ft)	Well Screen Top (ft BGS)	Well Screen Bottom (ft BGS)	Screen Top Elevation (ft > MSL)	Screen Bottom Elevation (ft > MSL)	Sampling Frequency**	Water Level Monitoring Frequency	Depth to Water Measurement on 8 November 2013 (ft BRE)	Ground Water Elevation on 8 November 2013 (ft > MSL)
						SAPRO	LITE / WATE	R TABLE			1	
7TP-1	Saprolite	345.76	24	20	4	24	342	322	Annually	Semi-Annually	Dry	Dry
2TP-5	Saprolite	358.02	63	15	48	63	308.38	293.38	Biennially***	Semi-Annually	56.09	301.93
2TP-6	Saprolite	358.79	50	15	35	50	321.41	306.41	Annually	Semi-Annually	49.05	309.74
2TP-7	Saprolite	358.76	59	15	44	59	313.16	298.16	Biennially***	Semi-Annually	42.62	316.14
2TP-8	Saprolite	348.67	62	15	47	62	299.11	284.11	Annually	Semi-Annually	41.05	307.62
2TP-9	Saprolite	348.85	55	15	40	55	305.95	290.95	Semi-Annually	Semi-Annually	43.02	305.83
2TP-10	Coastal Plain & Saprolite	358.95	23	10	13	23	345	335	Annually	Semi-Annually	19.77	339.18
2TP-11	Coastal Plain & Saprolite	357.57	30	10	20	30	338	328	Annually	Semi-Annually	20.06	337.51
2TP-13	Saprolite	362.11	59	15	44	59	315.58	300.58	Annually	Semi-Annually	57.67	304.44
2TP-14	Saprolite	348.85	48	15	33	48	314.77	299.77	Annually	Semi-Annually	29.02	319.83
2TP-17	Saprolite	349.29	47	15	32	47	314.8	299.8	None	Semi-Annually	37.87	311.42
2TP-18	Saprolite	346.42	43	15	28	43	316.02	301.02	None	Semi-Annually	38.83	307.59
2MW-4	Saprolite	348.8	46	20	26	46	320.31	300.31	Semi-Annually	Semi-Annually	38.39	310.41
2MW-5	Saprolite	346.06	68	15	53	68	290.87	275.87	Semi-Annually	Semi-Annually	38.72	307.34
2MW-6	Saprolite	350.13	44	15	29	44	318.6	303.6	Semi-Annually	Semi-Annually	42.21	307.92
2MW-12	Saprolite	353.61	36	15.0	21.0	36.0	332.57	317.57	Annually	Semi-Annually	29.93	323.68
2MW-13	Coastal Plain/Perched	353.42	11	8	3	11	350.69	342.69	Annually	Semi-Annually	4.23	349.19
S-1	Saprolite	349.94	41	30	11	41	336.9	306.9	None	Semi-Annually	43.39	306.55
S-2	Saprolite	346.89	50	30	20	50	325.06	295.06	Semi-Annually	Semi-Annually	38.93	307.96
S-3	Saprolite	347.69	50	30	20	50	325.78	295.78	Semi-Annually	Semi-Annually	38.08	309.61
S-4	Saprolite	346.14	50	30	19	49	325.23	295.23	Annually	Semi-Annually	38.49	307.65
	Ţ		I				BEDROCK	l	T		Г	
2MW-8S	Bedrock	359.24	128	20	108	128	248.8	228.8	Semi-Annually	Semi-Annually	58.32	300.92
2MW-9	Bedrock	349.45	93	20	73	93	274.47	254.47	Semi-Annually	Semi-Annually	41.15	308.30
2MW-11	Bedrock	345.54	120	20	100	120	243.61	223.61	Semi-Annually	Semi-Annually	37.17	308.37
2MW-8D	Bedrock	359.09	208	15	193	208	163.43	148.43	Biennially***	Semi-Annually	43.79	315.30
2MW-10D	Bedrock	348.56	200	24	176	200	170.08	146.08	Biennially***	Semi-Annually	30.97	317.59
HRD-1	Bedrock	341.11	140	20	120	140	221.11	201.11	Semi-Annually	Semi-Annually	29.45	311.66
B-5 OTES:	Bedrock	345.99	140	86	54	140	290.08	204.08	Semi-Annually	Semi-Annually	38.41	307.58

NOTES:

BGS = below ground surface.

BRE = below referece elevation.

ft = feet.

> MSL = above mean sea level.

The low set points for the extraction wells are: B-1 300.97; B-2 301.07; B-3 306.43; B-4 301.37; B-6 300.00.

^{**} Semi-annual frequency is twice per year in May/June and November/December time frames. Annual frequency is May/June time frame.

 $^{^{\}star\star\star}$ Biennial sampling is proposed for even years, starting in 2012.

Table 2 TCE Analytical Results for Units 2 and 7 Ground Water Monitoring November 2013 Former Appliance Park East Facility, Columbia, Maryland

		Well	Screen	6/14/2007	12/20/2007	1/2008	5/16/2008	11/20/2008	5/29/2009	11/3/2009	5/21/2010	11/19/2010
Well -	Well Depth			TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE	TCE
Sample ID	(ft BGS)	Тор	Bottom	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Saprolite / Water		[(-3/	(-3-)	(-9-)	(-3/	(-9-)	(-9)	(-3/	(-3/	(-3/
7TP-1	24	4.0	24.0	NC	NC	NC	NC	NC	NC	NC	NC	NC
2TP-5	63.0	48.0	63.0	30,000	NR	NC	32,000	NR	36,000	NR	33,000	NR
2TP-6	50.0	35.0	50.0	NSD	<2.0	NC	NSD	NSD	NSD	NSD	NSD	<1.0
2TP-7	59.0	44.0	59.0	4,500	3,600	NC	3,800	3,200	4,200	3,200	2,800	2,300
2TP-8	62.0	47.0	62.0	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0
2TP-9	55.0	40.0	55.0	890	920	NC	930	820	940	760	690	570
2TP-10 ^{CS}	21.9	13.0	23.0	NC	50,000	NC	NC	NC	NC	NC	NC	NC
2TP-11 ^{CS}	30.0	19.2	30.0	NC	3,200	NC	NC	NC	NC	NC	NC	NC
2TP-13	59.0	44.0	59.0	<2.0	<2.0	NC	<2.0	0.7	0.5	<1.0	<1.0	<1.0
2TP-14	58.0	43.0	58.0	5.4	4.6	NC	4.4	3.6	3.1	2.0 J	3.0 J	4.0 J
2MW-4	46.0	26.0	46.0	6.1	8.7	NC	10.0	9.4	13.0	11.0	14.0	16
2MW-5	68.0	53.0	68.0	76	69	NC	66	47	53	45	42	35
2MW-6	44.0	29.0	44.0	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0
2MW-12	34.9	19.9	34.9	NA	NC	890	NC	NC	NC	NC	NC	NC
2MW-13 ^{CP}	11.0	3.0	11.0	NA	NC	8.1	NC	NC	NC	NC	NC	NC
S-2	50.0	20.0	50.0	4	10	NC	9	7	6	5.0 J	5.0 J	3.0 J
S-3	50.0	20.0	50.0	3.2	3.0	NC	2.7	2.1	1.5	2.0 J	1.0 J	1.0 J
S-4	50.0	20.0	50.0	530	NR	NC	410	NR	330	NR	240	NR
Bedrock												
2MW-8S	128.0	108.0	128.0	16,000	19,000	NC	13,000	12,000	11,000	13,000	6,500	11,000
2MW-9	93.0	73.0	93.0	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0
2MW-11	120.0	100.0	120.0	160	130	NC	140	110	130	160	120	90
2MW-8D	208.0	193.0	208.0	130	120	NC	120	89	84	90	88	75
2MW-10D	200.0	176.0	200.0	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0
HRD-1	140.0	120.0	140.0	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0
B-5 Field Blank	140.0	54.0	140.0	190	160	NC	NS	160 E	100	120	100	25
NOTES:	-	-	-	<2.0	<2.0	NC	<2.0	<0.5	<0.5	<1.0	<1.0	<1.0

NOTES:

NC = Not collected

NS = Not sampled due to inability to retrieve passive bag sampler

NR = Not required for this sampling event.

NSD = Not sampled due to insufficient volume of water in well

NA = Not avaliable

 $\,$ MW-12, MW-13, 2TP-10, and 2TP-11 added to semi-annual sampling in June 2011.

< 2.0 result is less than or not detected at this limit of quantitation.

Starting in November 2009, samples analyzed using EPA Method 8260.

CP Coastal Plain/Perched Well

^{CS} Costal Plain & Saprolite

/ - Duplicate samples

Table 2 TCE Analytical Results for Units 2 and 7 Ground Water Monitoring November 2013 Former Appliance Park East Facility, Columbia, Maryland

		Well S	Screen	6/6/2011	11/18/2011	5/21/2012	11/16/2012	5/30/2013	11/25/2013
Well -	Well Depth			TCE	TCE	TCE	TCE	TCE	TCE
Sample ID	(ft BGS)	Тор	Bottom	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Saprolite / Water		l .	li .		L.	L			
7TP-1	24	4.0	24.0	NSD	NR	NSD	NR	NSD	NR
2TP-5	63.0	48.0	63.0	NR	NR	25,000	NR	NR	NR
2TP-6	50.0	35.0	50.0	NSD	NR	NSD	NR	NSD	NR
2TP-7	59.0	44.0	59.0	NR	NR	2,200	NR	NR	NR
2TP-8	62.0	47.0	62.0	<5.0	NR	<5.0	NR	<5.0	NR
2TP-9	55.0	40.0	55.0	450	240	220	270	240	240
2TP-10 ^{CS}	21.9	13.0	23.0	68,000	NR	58,000	NR	53,000	NR
2TP-11 ^{CS}	30.0	19.2	30.0	5,400	NR	7,800	NR	6,400	NR
2TP-13	59.0	44.0	59.0	7.0	NR	10	NR	10	NR
2TP-14	58.0	43.0	58.0	<5.0	NR	<5.0	NR	<5.0	NR
2MW-4	46.0	26.0	46.0	22/22	20	30	<5.0	33	33
2MW-5	68.0	53.0	68.0	35	29	32	28	25	22
2MW-6	44.0	29.0	44.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2MW-12	34.9	19.9	34.9	1,900	NR	2,000	NR	1,200	NR
2MW-13 ^{CP}	11.0	3.0	11.0	21	NR	9	NR	13	NR
S-2	50.0	20.0	50.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
S-3	50.0	20.0	50.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
S-4	50.0	20.0	50.0	<5.0	NR	280	NR	220	NR
Bedrock									
2MW-8S	128.0	108.0	128.0	37,000	34,000/33,000	29,000/30,000	30,000/32,000	28,000/30,000	23,000/23,000
2MW-9	93.0	73.0	93.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2MW-11	120.0	100.0	120.0	11	<5.0	<5.0	15	11	8
2MW-8D	208.0	193.0	208.0	NR	NR	71	NR	NR	NR
2MW-10D	200.0	176.0	200.0	NR	NR	<5.0	NR	NR	NR
HRD-1	140.0	120.0	140.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
B-5	140.0	54.0	140.0	6	6	7	14	6	9
Field Blank	-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:

NC = Not collected

NS = Not sampled due to inability to retrieve passive bag sampler

NR = Not required for this sampling event.

NSD = Not sampled due to insufficient volume of water in well

NA = Not avaliable

 $\,$ MW-12, MW-13, 2TP-10, and 2TP-11 added to semi-annual sampling in June 2011.

< 2.0 result is less than or not detected at this limit of quantitation.

Starting in November 2009, samples analyzed using EPA Method 8260.

CP Coastal Plain/Perched Well

^{CS} Costal Plain & Saprolite

/ - Duplicate samples

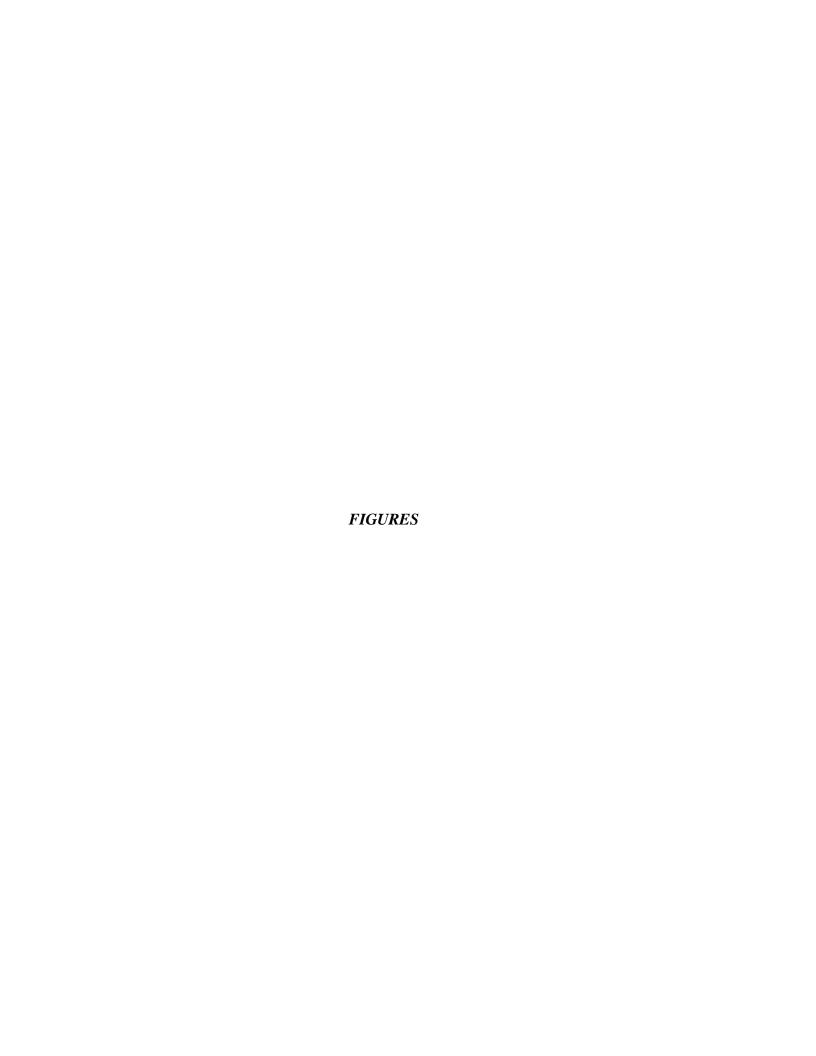
ATTACHMENT 3

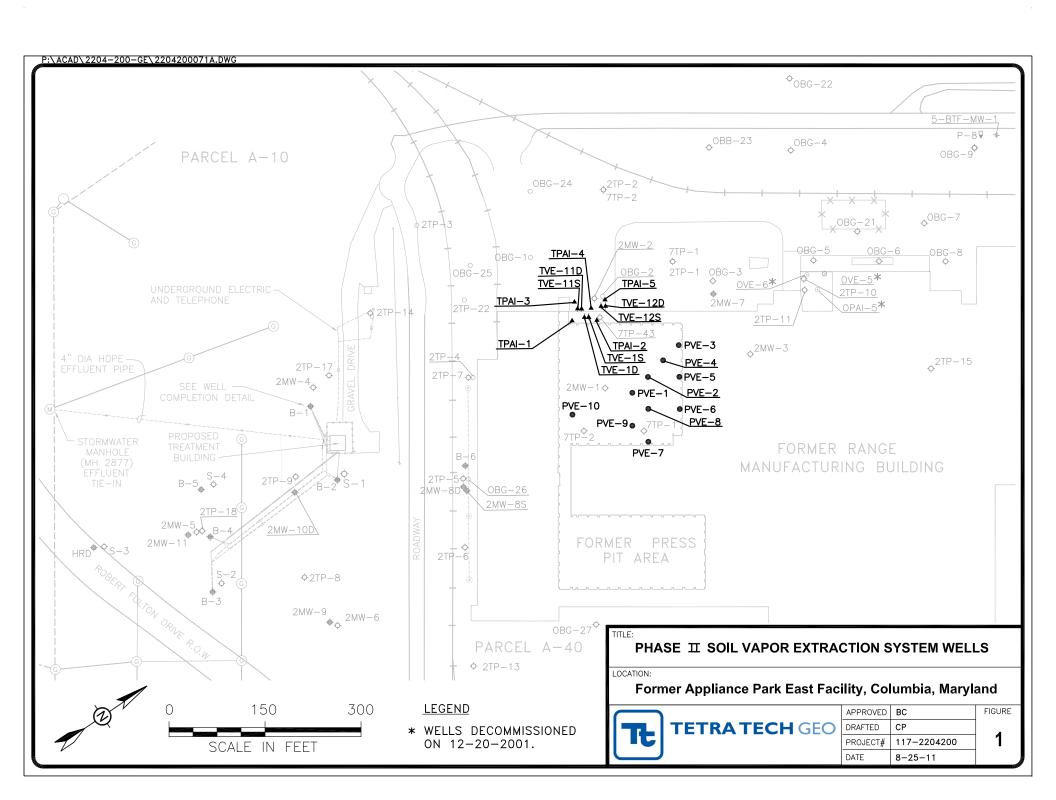
To Semi-Annual Project Progress Report RCRA Corrective Action Permit No. MDD046279311

General Electric Co. Former Appliance Park East Facility Columbia, MD

Period 1 July 2013 to 31 December 2013

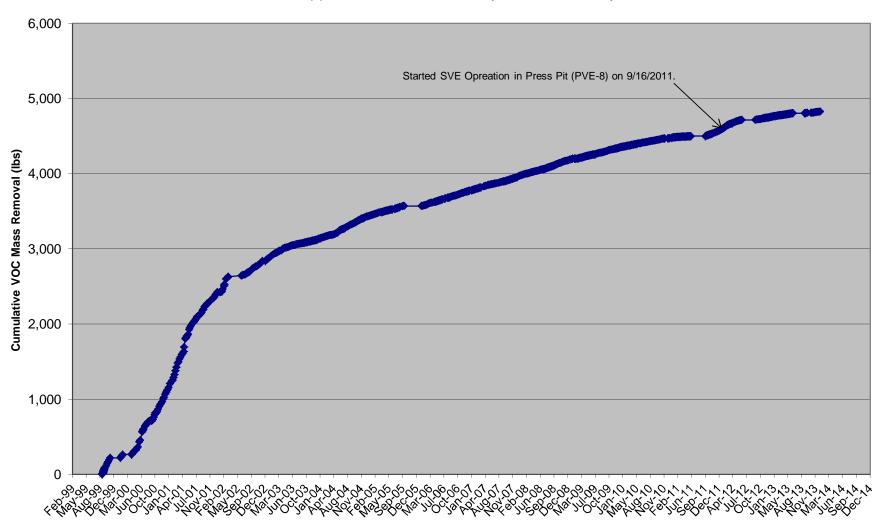
Findings Summary for the Phase II SVE System at RFI Units 2 and 7

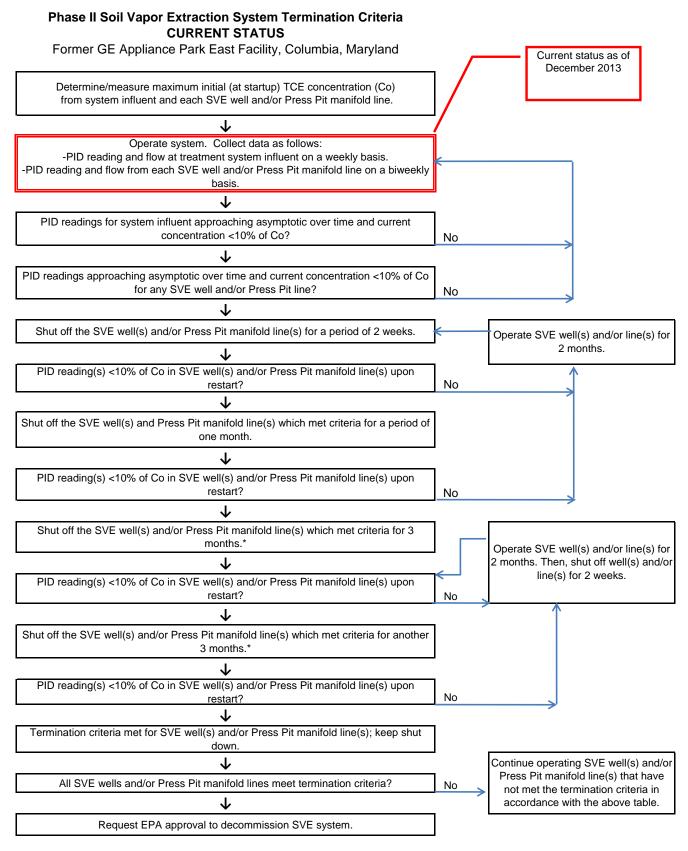




Phase II Soil Vapor Extraction System VOC Mass Removal

Former Appliance Park East Facility, Columbia, Maryland





Notes

The data for the Press Pit wells will not be evaluated until after the 2012 summer system shutdown.

^{*} The annual system shutdown for the months of June, July and August will be used as a desorption test. (Desorption test refers to collection of PID readings upon restarting a well or line.)
In 2011, the data for the system and SVE wells in ETT area will be evaluated according to the above criteria.

ATTACHMENT 4

To Semi-Annual Project Progress Report RCRA Corrective Action Permit No. MDD046279311

General Electric Co. Former Appliance Park East Facility Columbia, MD

Period 1 July 2013 to 31 December 2013

Findings Summary for Warehouse Building Oil/Water Separator and Acid Neutralization Units RFI Unit 6

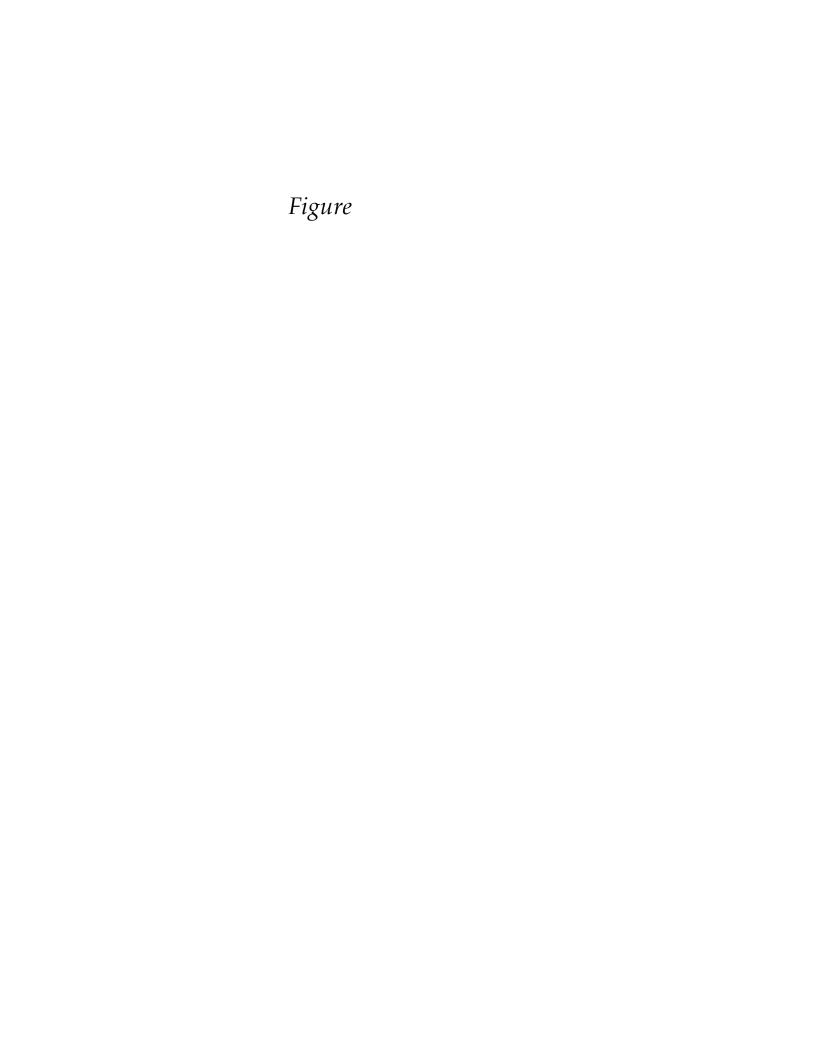
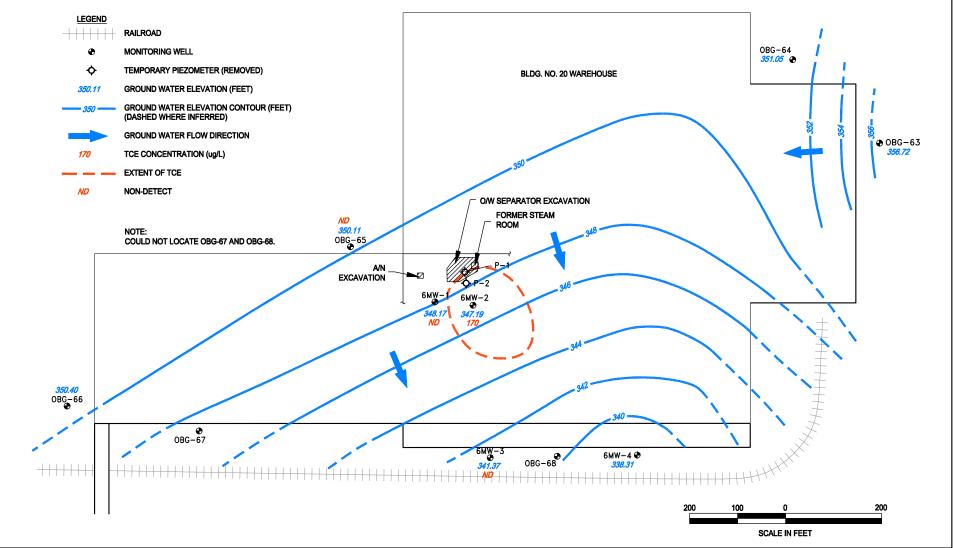


FIGURE 1 GROUND WATER ELEVATION CONTOUR MAP 29 NOVEMBER 2012



RFI UNIT #6 GE - FORMER APPLIANCE PARK EAST COLUMBIA, MARYLAND



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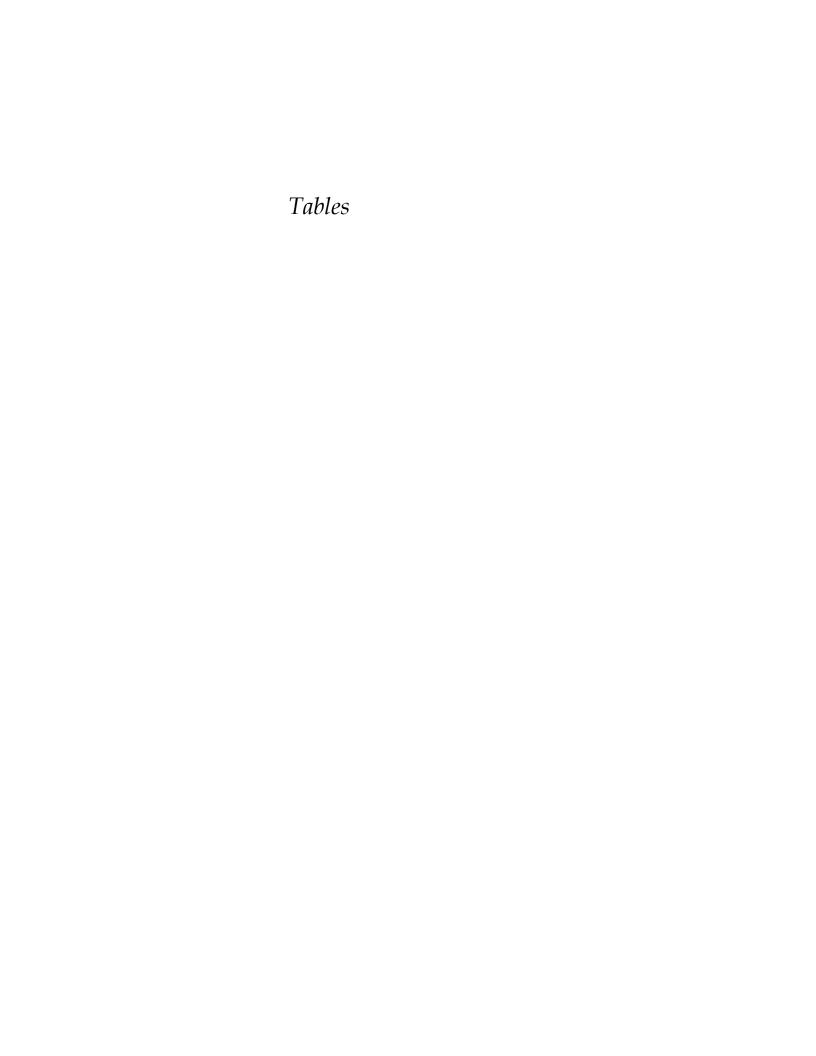


Table 1 Summary of Ground Water Elevations RFI Unit 6 Former Appliance Park East, Columbia, Maryland

Date		17-	-Oct-94*	17	′-Jan-95*	18	8-Apr-95*	1	8-Jul-95*	16	6-May-02	14-Nov-07		29	-Nov-12
El	eference Elevation eet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL	Depth to Water	Ground Water Elevation Feet, MSL
6MW-2 6MW-3 6MW-4 OBG-63 OBG-64 OBG-65 OBG-66	359.70 359.49 355.21 355.17 361.58 362.40 362.61 361.99 355.05 355.54	10.99 11.58 11.91 10.81 9.61 11.33 11.97 11.81 5.44 12.05	348.71 347.91 343.30 344.36 351.97 351.07 350.64 350.18 349.61 343.49	11.41 12.04 12.00 10.52 8.33 10.52 11.83 12.57 5.55 12.27	348.29 347.45 343.21 344.65 353.25 351.88 350.78 349.42 349.50 343.27	11.37 11.93 12.17 NM 9.22 11.01 12.30 12.42 5.38 12.50	348.33 347.56 343.04 352.36 351.39 350.31 349.57 349.67 343.04	11.05 11.55 11.77 10.59 9.35 11.00 12.12 11.95 4.36 11.93	348.65 347.94 343.44 344.58 352.23 351.40 350.49 350.04 350.69 343.61	12.69 13.42 17.14 15.83 5.60 11.51 13.33 13.54 6.69 NM	347.01 346.07 338.07 339.34 355.98 350.89 349.28 348.45 348.36	12.08 12.68 14.76 16.55 5.61 11.99 13.41 13.37 NM NM	347.62 346.81 340.45 338.62 355.97 350.41 349.20 348.62	11.53 12.30 13.84 16.86 4.86 11.35 12.50 11.59 NM NM	348.17 347.19 341.37 338.31 356.72 351.05 350.11 350.40

Notes:

* - Data presented in *Addendum to the RCRA Facility Investigation Report for RFI Unit 6,* dated 2 August 1995 Reference elevation for all wells is top of PVC casing

MSL - Mean Sea Level

NM - Not measured, well was inaccessible

Table 2 Detected Analytes for Ground Water Samples RFI Unit 6

Former Appliance Park East, Columbia, Maryland

	Sample	Number		6-	-MW-1		6-MW-2				6-MW-3				6-MW-4		OBG-65				OBG-67	OBG-68
Samp	Sample Collection Date 8/22/94* 5/16/2002 11/14/2007 11/29/2012			8/23/94*	5/16/2002	11/14/2007	11/29/2012	8/23/94*	5/16/2002	11/14/2007	11/29/2012	8/23/94*	5/16/2002	8/22/94*	5/16/2002	11/14/2007	11/29/2012	8/23/94*	8/23/94*			
Analyte	HBN	PQL																				
Field Parameters																						
pH (standard units)			6.9	6.4	5.9	6.3	6.3	6.2	6.7	6.0	6	6.6	6.8	6.7	5.4	6.2	6.2	6.4	6.2	6.0	6.8	6.7
Conductivity (mS/cm)			NA	0.169	0.238	0.116	NA	0.203	0.660	0.079	NA	0.771	0.616	0.298	NA	0.908	NA	0.213	0.315	0.090	NA	NA
Temperature (°C)			NA	19.8	17.4	19.1	NA	19.7	16.5	19.5	NA	16.7	16.6	17.7	NA	16.5	NA	15.9	15.7	16.1	NA	NA
D.O. (mg/L)			NA	2.83	NA	NA	NA	0.84	NA	NA	NA	2.21	NA	NA	NA	4.59	NA	4.63	NA	NA	NA	NA
Permit List 4 Volatiles (μg	/L)																					
1,1-Dichloroethene	7	5		< 5	< 5	< 5		30	56	85		< 5	< 5	< 5		< 5		< 5	< 5	< 5		
cis-1,2-Dichloroethene		5	NA	< 5	< 5	< 5	NA	82	89	97	NA	< 5	< 5	< 5	NA	< 5	NA	< 5	< 5	< 5	NA	NA
1,2-Dichloroethene (total)	100	5		NA	NA	NA	11	NA	NA	NA		NA	NA	NA		NA		NA	NA	NA		
Trichloroethene	5	5		< 5	< 5	< 5	24	110	130	170		< 5	< 5	< 5		< 5		< 5	< 5	< 5		
Benzene	5	5		< 5	< 5	< 5	2 J	< 5	< 5	< 5		< 5	< 5	< 5		< 5		< 5	< 5	< 5		
Tetrachloroethene	5	5		< 5	< 5	< 5		6	18	44		< 5	< 5	< 5		< 5		< 5	< 5	< 5		
Inorganic Parameters (μg	/L)																					
Antimony	10	30		< 5	NA	NA		< 5	NA	NA		< 5	NA	NA		< 5		< 5	NA	NA	2.3	
Chromium	100	10	2.2 J	< 3	NA	NA	0.44 J	< 3	NA	NA		< 3	NA	NA	2 J	< 3		< 3	NA	NA	7.9	3.8 B

Notes:

mg/L - milligrams per liter

μg/L - micrograms per liter HBN - Health Based Number

PQL - Practical Quantitation Limit

- * Data presented in RCRA Facility Investigation Report for RFI Unit 6, dated 3 March 1995
- < 5 Analyte not detected, value indicates detection limit
- -- Not detected.

NA - Not analyzed

- J Analyte present, result may not be accurate or precise
- B Not detected substantially above the level reported in laboratory or field blanks
- d Sample is a duplicate of 6MW-2

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Table 2 (cont.) Detected Analytes for Ground Water Samples RFI Unit 6

Former Appliance Park East, Columbia, Maryland

	Sample Number			6-MW-20 ^d	6-MW-5 ^d		6-FB-1		6-EB-1		6-TB-1		TB-1	
Sample Collection Date			8/23/94*	5/16/2002	11/14/2007	11/29/2012	8/22/94*	5/16/2002	8/22/94*	5/16/2002	8/23/94*	5/16/2002	11/14/2007	11/29/2012
Analyte	HBN	PQL												
Field Parameters														
pH (standard units)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Conductivity (mS/cm)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Temperature (°C)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D.O. (mg/L)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Permit List 4 Volatiles (μg/L)														
1,1-Dichloroethene	7	5		30	57	84		< 5		< 5		< 5	< 5	< 5
cis-1,2-Dichloroethene		5	NA	83	95	96	NA	< 5	NA	< 5	NA	< 5	< 5	< 5
1,2-Dichloroethene (total)	100	5	10	NA	NA	NA		NA		NA		NA	NA	NA
Trichloroethene	5	5	23	110	130	170		< 5		< 5		< 5	< 5	< 5
Benzene	5	5	2 J	< 5	< 5	< 5		< 5		< 5		< 5	< 5	< 5
Tetrachloroethene	5	5		6	17	45		< 5		< 5		< 5	< 5	< 5
Inorganic Parameters (μg/L)														
Antimony	10	30		< 5	NA	NA		< 5		< 5		< 5	NA	NA
Chromium	100	10		< 3	NA	NA	1	< 3		< 3		< 3	NA	NA

Notes:

mg/L - milligrams per liter

 $\mu g/L$ - micrograms per liter

HBN - Health Based Number

PQL - Practical Quantitation Limit

* - Data presented in RCRA Facility Investigation Report for RFI Unit 6, dated 3 March 1995

< 5 - Analyte not detected, value indicates detection limit

-- - Not detected, detection limit not available

NA - Not analyzed

J - Analyte present, result may not be accurate or precise

B - Not detected substantially above the level reported in laboratory or field blanks

d - Sample is a duplicate of 6MW-2

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